

SUPER MARIO BROS.



IF TAKING A MASHROC*



MARIO BECOMES SUPER MARIO.

IF TAKING A FLOWER,



MARIO BECOMES FIRE MARIO.

IF TAKING A STAR,



MARIO BECOMES INVULNERABLE MARIO.

HOW TO PLAY

* START POINT AND TIME

GAME STARTS FROM HEAD OF EVERY AREA. WHEN MARIO IS MOVING TO HALF OF COURSE, IF HE IS ENCLOSED BY ENEMY, HE CAN START AGAIN FROM HALFWAY OF COURSE.

IN THE LAST CASTLE, YOU START FROM ENTRANCE.

WHEN MARIO STARTS, TIME ON UPSIDE RIGHT OF SCREEN RUNS SHORT.

WHEN REACHING GOAL, REMAINING TIME IS ADDED AS A POINT.

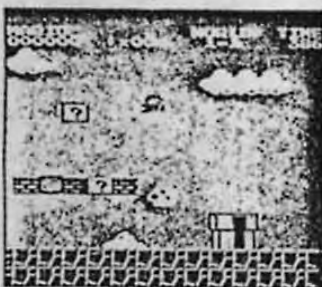
IN THE LAST CASTLE, NO TIME BONUS.

* GOAL

AT THE END OF EACH AREA THERE IS A SMALL CASTLE, AND IN FRONT OF IT BIG STAIRS AND POLE WITH FLAG. THE HIGHER POINT OF THE POLE YOU HOLD ON, THE MORE YOU GET BONUS POINT

IN TERMS OF PROGRAM, DEPENDING ON TELEVISION SET, AS THE CASE MAY BE, SOME PARTS OF LETTER ARE MISSING.

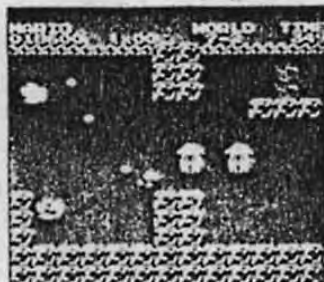
GROUND



UNDER GROUND



SEA

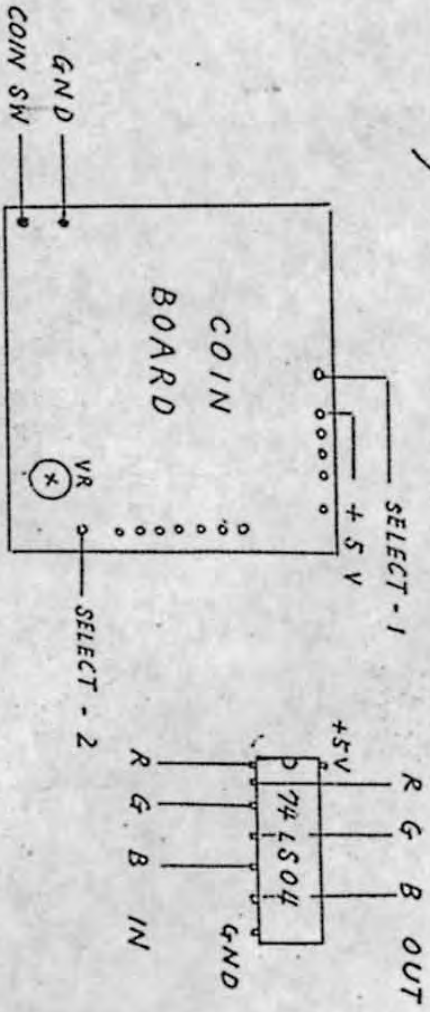
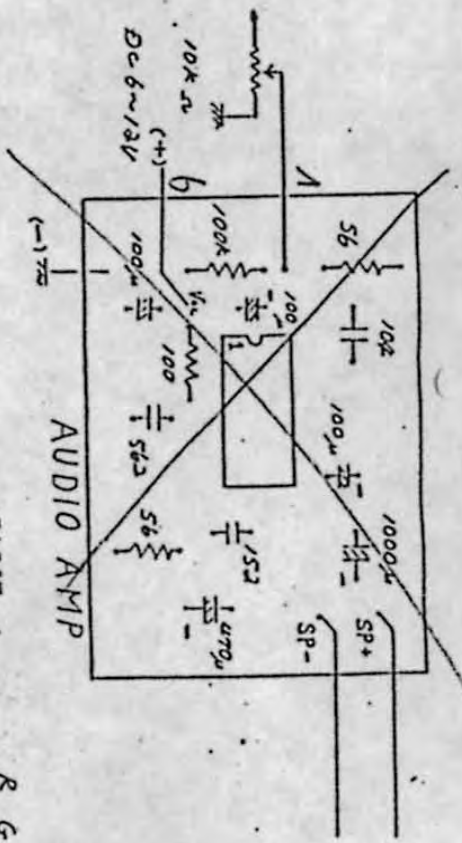


SKY



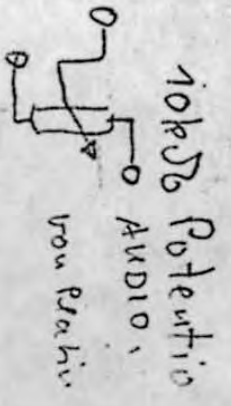
CONNECTOR

| PARTS SIDE | | SOLDER SIDE | |
|------------|----|-------------|----------|
| GND | 1 | A | GND |
| GND | 2 | B | GND |
| +5V | 3 | C | +5V |
| +5V | 4 | D | +5V |
| +12V | 5 | E | +12V |
| | 6 | F | |
| COIN 2 | 7 | H | COIN 1 |
| 2 PLAY | 8 | J | 1 PLAY |
| 2P RIGHT | 9 | K | IP RIGHT |
| 2P LEFT | 10 | L | IP LEFT |
| 2P UP | 11 | M | IP UP |
| 2P DOWN | 12 | N | IP DOWN |
| 2P A-SW | 13 | P | IP A-SW |
| 2P B-SW | 14 | R | IP B-SW |
| | 15 | S | SERVICE |
| | 16 | T | |
| VIDEO C | 17 | U | VIDEO R |
| VIDEO SYNC | 18 | V | VIDEO B |
| | 19 | W | TV AUDIO |
| +24V | 20 | X | COUNTER |
| GND | 21 | Y | GND |
| GND | 22 | Z | GND |



☆☆ SUPER ☆☆☆
 ☆☆☆ MARIO BROS. ☆☆☆
 CN-171

- 1 } GND
- 2 } LAUTSPRECHER
- 3 } LAUTSPRECHER
- 4 } LAUTSPRECHER
- 5 } +12V
- 6 } GND



Super Mario Bros .

Steckerbelegung Standort Ad.K. 28pol.

| <u>Oben</u> | | <u>Unten</u> |
|-------------------|----|----------------------|
| GND | 1 | GND |
| GND | 2 | GND |
| + 5 V | 3 | + 5 V |
| + 5 V | 4 | + 5 V |
| + 12 V | 5 | + 12 V |
| Lautsprecher 1 | 6 | Lautsprecher 1 ↗ GND |
| Auf 1 Spieler | 7 | Auf 2 Spieler |
| Ab 1 Spieler | 8 | Ab 2 Spieler |
| Links 1 Spieler | 9 | Links 2 Spieler |
| Rechts 1 Spieler | 10 | Rechts 2 Spieler |
| Start 1 Spieler | 11 | Start 2 Spieler |
| Action A1 Spieler | 12 | Action 2 Spieler |
| Action B1 Spieler | 13 | Action 2 Spieler |
| | 14 | |
| | 15 | |
| Münzschalter 1 | 16 | Münzschalter 2 |
| | 17 | |
| | 18 | |
| Münzzähler 1 | 19 | Münzzähler 2 |
| | 20 | |
| | 21 | |
| TV Rot | 22 | TV Blau |
| TV Grün | 23 | |
| Synchron | 24 | |
| | 25 | |
| | 26 | |
| GND | 27 | GND |
| GND | 28 | GND |

Super Mario Bros

8-Map

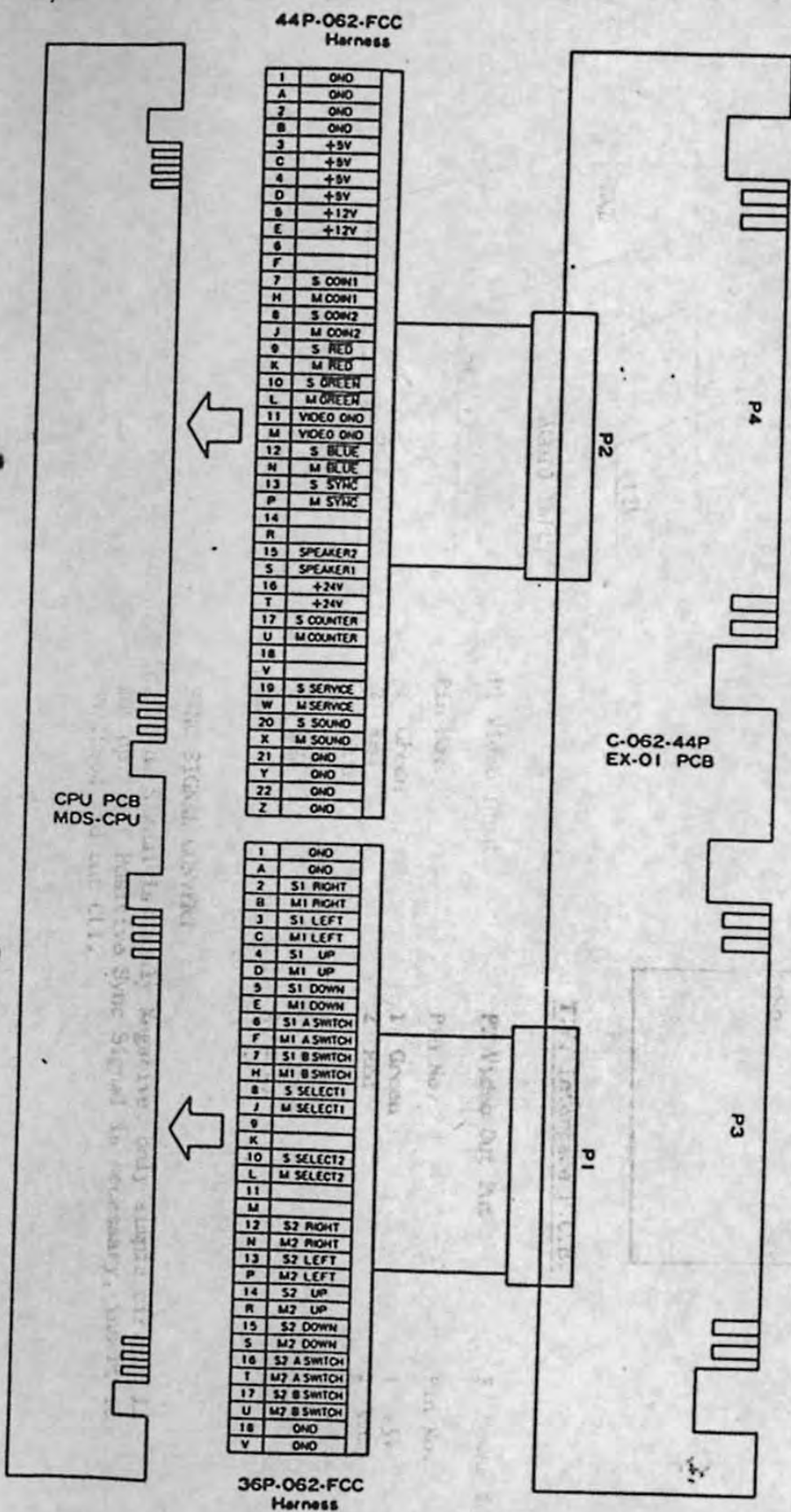
CONNECTION OF INPUT/OUTPUT

A₁D₁ nur für Stand
P1 mit P2 überbrücke

Oben Unten

| | | |
|------|---|------|
| GND | 1 | GND |
| GND | 2 | GND |
| +5V | 3 | +5V |
| +5V | 4 | +5V |
| +12V | 5 | +12V |
| | 6 | |

| | | |
|------------|----|------------|
| Coin 2 | 7 | Coin 1 |
| 2P Start | 8 | 1P Start |
| 2P Rechts | 9 | 1P Rechts |
| 2P Links | 10 | 1P Links |
| 2P Oben | 11 | 1P Oben |
| 2P Unten | 12 | 1P Unten |
| 2P Sprung | 13 | 1P Sprung |
| 2P Schnell | 14 | 1P Schnell |
| | 15 | Service |
| | 16 | |
| TV Grün | 17 | TV Rot |
| TV Sync | 18 | TV Blau |
| Lautspr. | 19 | |
| | 20 | Zähler |
| GND | 21 | GND |
| GND | 22 | GND |



44P-062-FCC
Harness

| | |
|----|-----------|
| 1 | GND |
| A | GND |
| 2 | GND |
| B | GND |
| 3 | +5V |
| C | +5V |
| 4 | +5V |
| D | +5V |
| E | +12V |
| F | +12V |
| 7 | S COIN1 |
| H | M COIN1 |
| 8 | S COIN2 |
| J | M COIN2 |
| 9 | S RED |
| K | M RED |
| 10 | S GREEN |
| L | M GREEN |
| 11 | VIDEO GND |
| M | VIDEO GND |
| 12 | S BLUE |
| N | M BLUE |
| 13 | S SYNC |
| P | M SYNC |
| 14 | |
| R | |
| 15 | SPEAKER2 |
| S | SPEAKER1 |
| 16 | +24V |
| T | +24V |
| 17 | S COUNTER |
| U | M COUNTER |
| 18 | |
| V | |
| 19 | S SERVICE |
| W | M SERVICE |
| 20 | S SOUND |
| X | M SOUND |
| 21 | GND |
| Y | GND |
| 22 | GND |
| Z | GND |

C-062-44P
EX-01 PCB

| | |
|----|-------------|
| 1 | GND |
| A | GND |
| 2 | S1 RIGHT |
| B | M1 RIGHT |
| 3 | S1 LEFT |
| C | M1 LEFT |
| 4 | S1 UP |
| D | M1 UP |
| 5 | S1 DOWN |
| E | M1 DOWN |
| 6 | S1 A SWITCH |
| F | M1 A SWITCH |
| 7 | S1 B SWITCH |
| H | M1 B SWITCH |
| 8 | S SELECT1 |
| J | M SELECT1 |
| 9 | |
| K | |
| 10 | S SELECT2 |
| L | M SELECT2 |
| 11 | |
| M | |
| 12 | S2 RIGHT |
| N | M2 RIGHT |
| 13 | S2 LEFT |
| P | M2 LEFT |
| 14 | S2 UP |
| R | M2 UP |
| 15 | S2 DOWN |
| S | M2 DOWN |
| 16 | S2 A SWITCH |
| T | M2 A SWITCH |
| 17 | S2 B SWITCH |
| U | M2 B SWITCH |
| 18 | GND |
| V | GND |

36P-062-FCC
Harness

| | |
|----|------------|
| 1 | GND |
| A | GND |
| 2 | GND |
| B | GND |
| 3 | +5V |
| C | +5V |
| 4 | +5V |
| D | +5V |
| E | +12V |
| F | +12V |
| G | |
| H | Coin 2 |
| M | Coin 1 |
| B | 2 Play |
| J | 1 Play |
| 8 | 2P Right |
| K | 1P Right |
| 10 | 2P Left |
| L | 1P Left |
| 11 | 2P UP |
| M | 1P UP |
| 12 | 2P Down |
| N | 1P Down |
| 13 | 2P Above |
| P | 1P Above |
| 14 | 2P Below |
| R | 1P Below |
| 15 | |
| S | Service |
| 16 | |
| T | |
| 17 | Video 0 |
| U | Video R |
| 18 | Video Sync |
| V | Video B |
| 19 | Lautspr. |
| W | |
| 20 | |
| X | Counter |
| 21 | GND |
| Y | GND |
| 22 | GND |
| Z | GND |

Oben
1 22

Start

DIP SW 2

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---------------|-----|-----|-----|---|---|---|---|---|
| 1coin 1credit | OFF | OFF | OFF | | | | | |
| 1coin 2credit | OFF | OFF | ON | | | | | |
| 1coin 3credit | OFF | ON | OFF | | | | | |
| 1coin 4credit | OFF | ON | ON | | | | | |
| 2coin 1credit | ON | OFF | OFF | | | | | |
| 3coin 1credit | ON | OFF | ON | | | | | |
| 4coin 1credit | ON | ON | OFF | | | | | |
| FREE PLAY | ON | ON | ON | | | | | |

NUMBER OF MARIO 3 OFF
" 4 ON

EXTRA SCORE 50,000PTS OFF
NO SCORE ON

DIFFICULTY
EASY 1 OFF OFF
| 2 OFF ON
| 3 ON OFF
DIFFICULT 4 ON ON

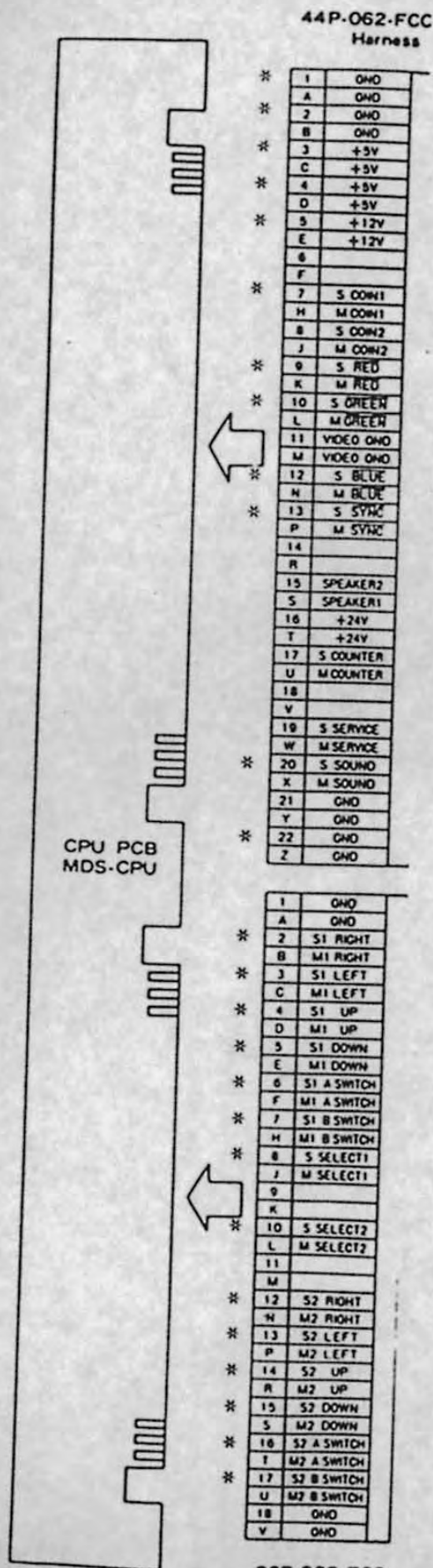
DIP SW 1 --- NOT USE

SUPER MARIO BROS

MGS
P.C. BOARD SET

OPERATORS MANUAL

CONNECTION OF INPUT/OUTPUT



"*" --- ONLY USE.

HOW TO CARE AV-01 BOARD

There are Video Signal Converter (Negative - Positive) and Audio Power Amp Circuit. Even though there is only one of them, board works correctly.

1. VIDEO SIGNAL CONVERTER

1-1 Position of Connector Pin

| P1 VIDEO IN | | P2 VIDEO OUT | |
|-------------|--------|--------------|--------|
| PIN No. | SIGNAL | PIN No. | SIGNAL |
| 1 | GREEN | 1 | GREEN |
| 2 | RED | 2 | RED |
| 3 | BLUE | 3 | BLUE |
| 4 | GND | 4 | GND |
| 5 | GND | 5 | GND |
| 6 | SYNC | 6 | SYNC |

1-2 Adjustment of VIDEO SIGNAL CONVERTER

Each R,G,B of Video Signal Level is adjustable by Adjustable V. R. Please adjust according to level of your Monitor T.V.

1-3 SYNC SIGNAL CONVERT

As SYNC Signal is usually Negative, only simple circuit is set up. If Positive SYNC Signal is necessary, insert IC SN74LS04 and cut CL1.

1-4 CABLE

I/O Cable should be no longer than 1m.

2. AUDIO POWER AMP CIRCUIT

2-1 Position of Connector Pin

| P4 SOUND IN | | P5 SOUND OUT | |
|-------------|-----------|--------------|---------|
| PIN No. | SIGNAL | PIN No. | SIGNAL |
| 1 | SOUND SIG | 1 | SPEAKER |
| 2 | | 2 | SPEAKER |
| 3 | | 3 | * * * |

2-2 Setting up of Input Signal

According to Input Signal Level of Audio Power Amp, change the circuit and please use with proper Input Level. If it is used over proper Input Level, sound would be saturated or Volume VR 4 would be impossible to adjust sound.

| INPUT LEVEL | HOW TO CHANGE CIRCUIT |
|-------------|------------------------------------|
| 2V | Short SL1 with solder, and cut CL2 |
| 1V | Needless to change circuit |
| 0.5V | Short SL2 with solder, and cut CL2 |

2-3 CONFORM SPEAKER

| | | |
|------------|-----|----|
| Impedance | 4 | 8 |
| MAX. Input | 12W | 6W |

Audio Power Amp Max. Output 12W (4)

3. CAPACITY OF POWER SUPPLY

3-1 INPUT CONNECTOR

P3 POWER IN

| PIN No. | SIGNAL |
|---------|--------------------------------------------|
| 1 | +5V |
| 2 | +12V |
| 3 | GND * 1 *1 GND for VIDEO SIGNAL CONVERTER |
| 4 | GND * 2 *2 GND for AUDIO POWER AMP CIRCUIT |

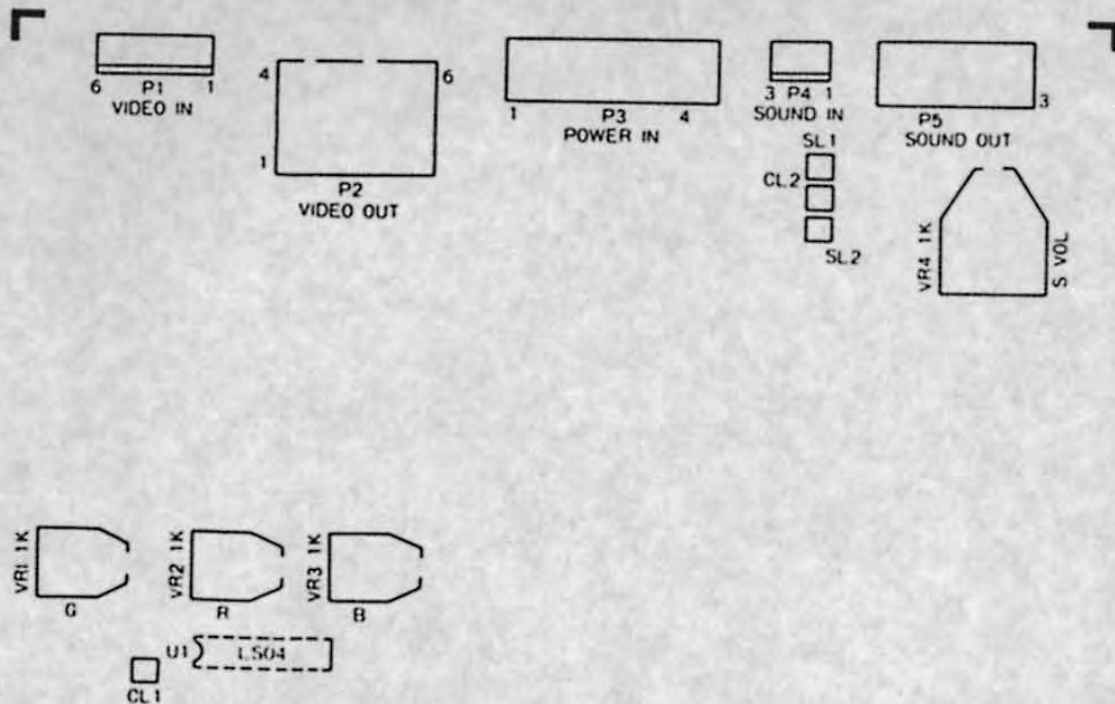
3-2 CAPACITY OF POWER SUPPLY

| | | |
|------|------|-----------------------------|
| +5V | 0.2A | For Video Signal Converter |
| +12V | 1.5A | For Audio Power Amp Circuit |

3-3 CONNECTION OF GND

GND of VIDEO SIGNAL CONVERTER, and Audio Power Amp Circuit is independent from AV-01 Board completely. Please connect each GND correctly.

4. REFFERING CHART



DIP SW 2

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---------------|-----|-----|-----|---|---|---|---|---|
| 1coin 1credit | OFF | OFF | OFF | | | | | |
| 2coin 1credit | OFF | OFF | ON | | | | | |
| 3coin 1credit | OFF | ON | OFF | | | | | |
| 1coin 2credit | OFF | ON | ON | | | | | |
| 1coin 3credit | ON | OFF | OFF | | | | | |
| 1coin 4credit | ON | OFF | ON | | | | | |
| 1coin 5credit | ON | ON | OFF | | | | | |
| FREE PLAY | ON | ON | ON | | | | | |

| | | |
|-----------------|---|-----|
| NUMBER OF MARIO | 3 | OFF |
| " " | 2 | ON |

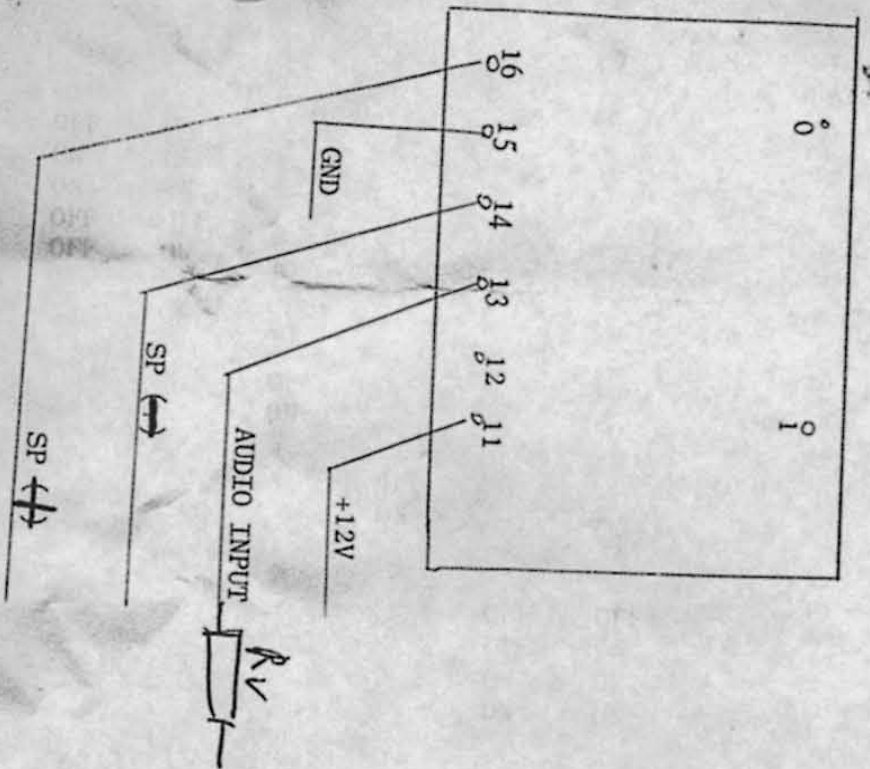
| | |
|-----------------------|-----|
| EXTRA SCORE 50,000PTS | OFF |
| NO SCORE | ON |

DIFFICULTY

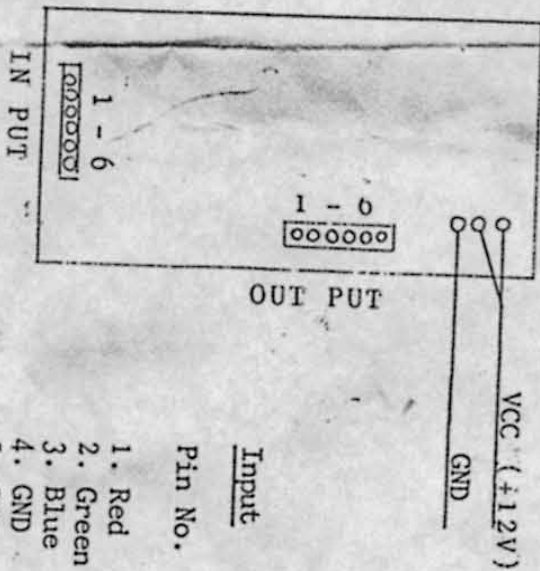
| | | | |
|-----------|---|-----|-----|
| EASY | 1 | OFF | OFF |
| | 2 | OFF | ON |
| | 3 | ON | OFF |
| DIFFICULT | 4 | ON | ON |

DIP SW 1 --- NOT USE

Audio Power Amp P.C.B.



T.V. Interface P.C.B. 1



- Input
- Pin No.
1. Red
 2. Green
 3. Blue
 4. GND
 5. GND
 6. Sync

- Out Put
- Pin No.
1. Red
 2. Green
 3. Blue
 4. GND
 5. GND
 6. Sync