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Mysterious Stones

PC BOARD CONVERSION KIT
INSTALLATION INSTRUCTIONS

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WARNING

This equipment generates and uses radio frequency energy and if not installed and used properly, i.e., in strict accordance with the instructions manual, may cause harmful 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.

MYSTERIOUS STONES

PCB CONVERSION KIT

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CHOOSING THE MACHINE TO BE CONVERTED

One of the most important considerations determining the success of your conversion will be the condition of the machine you are converting. Obviously, if the picture is dull with the original game, it will be no better with the conversion installed. If you have a choice, select a machine that has an instruction manual and/or good primary wiring diagrams. Try to select a machine that has previously been certified as conforming to Part 15 of the FCC Rules. It is important that the primary wiring contain a good noise filter in order to avoid conducted radio frequency interference.

COSMETIC CONSIDERATIONS

Since it is extremely important that all visible graphics, original manufacturers name (other than serial number plate, which MUST remain affixed), logos and etc., are to be removed or covered by new graphics, a proper choice of cabinet in this phase of the conversion can save you much time.

MECHANICAL CONSIDERATIONS

Make sure the integrity of the cabinet is such that the converted game will not be the vandal's dream. Review the control panel to identify what changes will be required so that you will be properly prepared. It may be necessary to drill additional holes for pushbuttons, etc., before applying the control panel overlay.

ELECTRONIC CONSIDERATIONS

The DATA EAST Mysterious Stonestm game is designed to operate with a color RASTER SCAN monitor mounted in the VERTICAL direction (you home tv screen is mounted in the horizontal direction). The Mysterious Stones PCB generates COMPOSITE SYNC.

Power Supply requirements are : +5 Vdc @ 7 amps, +12 Vdc @ 1 A (+12 Vdc is used for VCC in the sound circuit and can also be used for the coin counter and coin switch circuit), and -5Vdc @ 0.1A.

It is strongly recommended that the cabinet be wired to conform to all National and Local Electrical Code requirements before the conversion is attempted. The system must have adequate noise filtering on the AC input line in order to avoid conducted Radio Frequency Interference, which could be in violation of FCC rules.

LABELING CONSIDERATION

According to the FCC and various other agencies, National and local, every video game cabinet must be clearly and permanently labeled with the name and address of the Original Manufacturer, Date of manufacture (or serial number) voltage rating, rated current, suitability for indoor/outdoor use, and unit model number. All of this information should be contained on the original serial number tag, which MUST remain affixed to the cabinet. In addition, FCC rules require that, after conversion, the unit must be labeled with a suitable warning stating that radio frequency interference may result from use of the device in a residential area. An acceptable warning label is provided with the instruction manual. IT IS THE RESPONSIBILITY OF THE INDIVIDUAL DOING THE CONVERSION TO ENSURE THAT ALL LABELING REQUIREMENTS ARE CONFORMED WITH! That individual should also affix his name and date of conversion in a prominent place on the back of the machine.

MYSTERIOUS STONES

P C BOARD CONVERSION KIT

GENERAL COMMENTS:

Kit contents are:

- 1 Mysterious Stones PCB
- 2 Generic Harness
- 3 36 to 44 Pin Adapter Harness
- 4 DE-0209 RFI Filter PCB
- 5 EMI Cage
- 6 Generic Graphics Set
- 7 Mysterious Stones instruction card
- 8 Clear Plex (23.75 X 23.75 X .125)
- 9 This instruction manual

Please read the CONVERSION SUMMARY on previous page before attempting the conversion.

CAUTION: It is mandatory that the PCB be enclosed in the EMI Cage, and it is mandatory that the DE-0209 RFI Filter be used. Failure to do so may result in undesirable radio frequency interference.

HARNESSING: This kit is provided with a labeled, generic main harness. The 44 pin connector mates with the edge connector of the DE-0209 RFI Filter PCB. In addition, a short adapter harness is provided in order to adapt from the 44 pin connector on the DE-0209 to the 36 pin edge connector on the Mysterious Stones PCB. See page 3 for proper hook-up.

See page 6 for Generic harness pin-outs. See page 5 for PCB Pin-Outs.

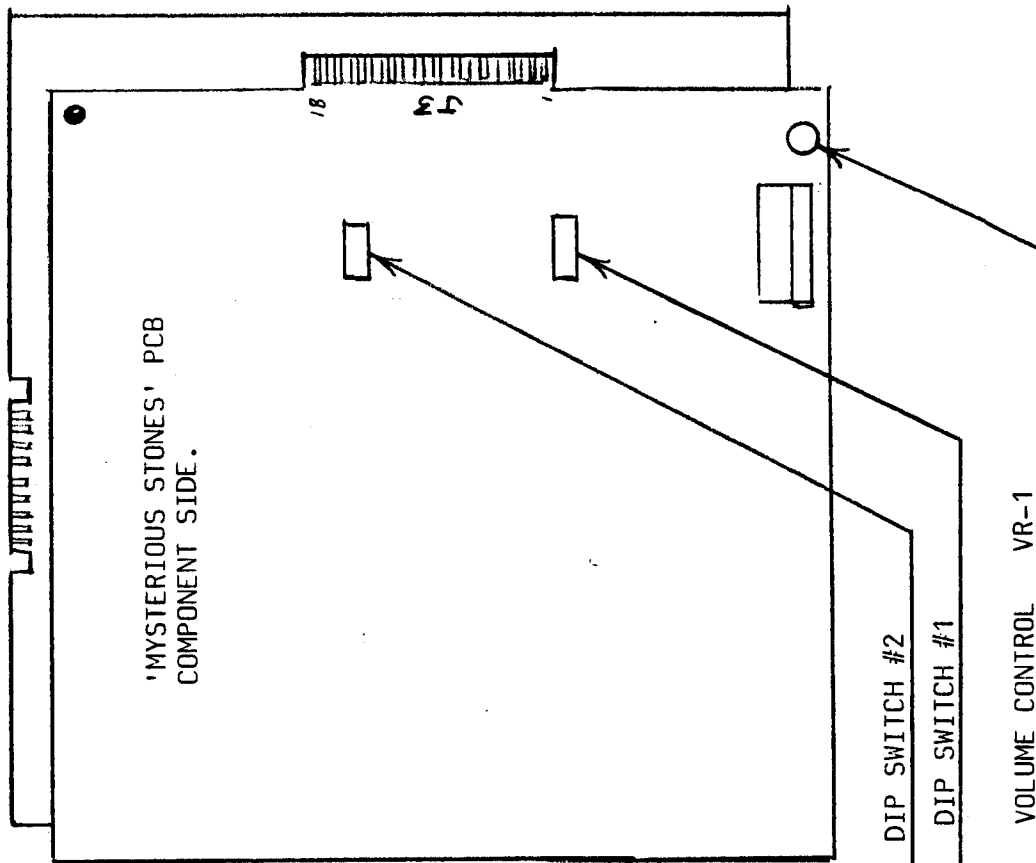
Be sure to follow the grounding scheme shown on page 4 in order to avoid static and potential system noise.

FCC LABEL: When kit installation is completed, the FCC label attached to this page must be attached to the rear of the cabinet, preferably near the serial number label. Failure to do so is a violation of the FCC Rules, and may result in a Federal Citation!

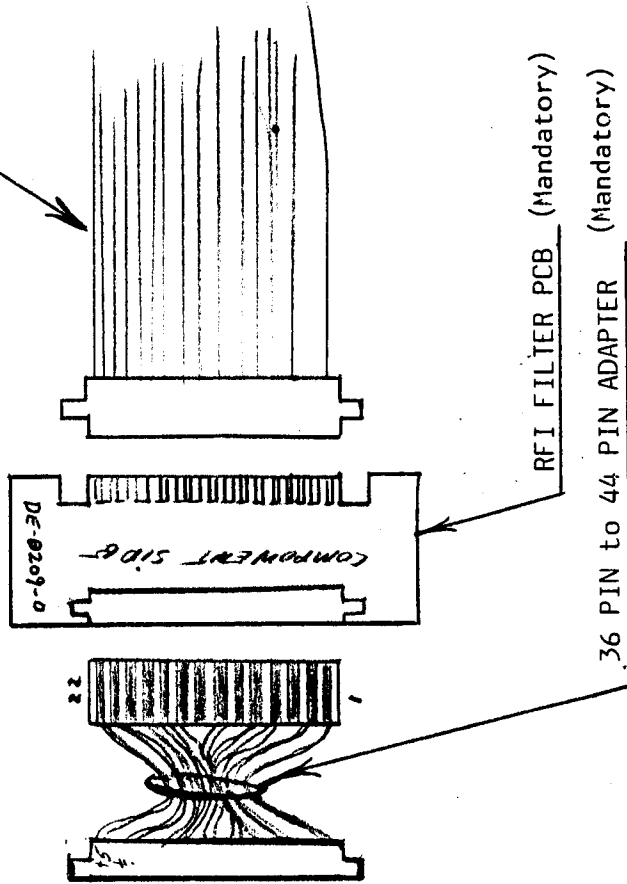
MYSTERIOUS STONES

RFI FILTER AND 36 to 44 PIN ADAPTER HARNESS INSTALLATION

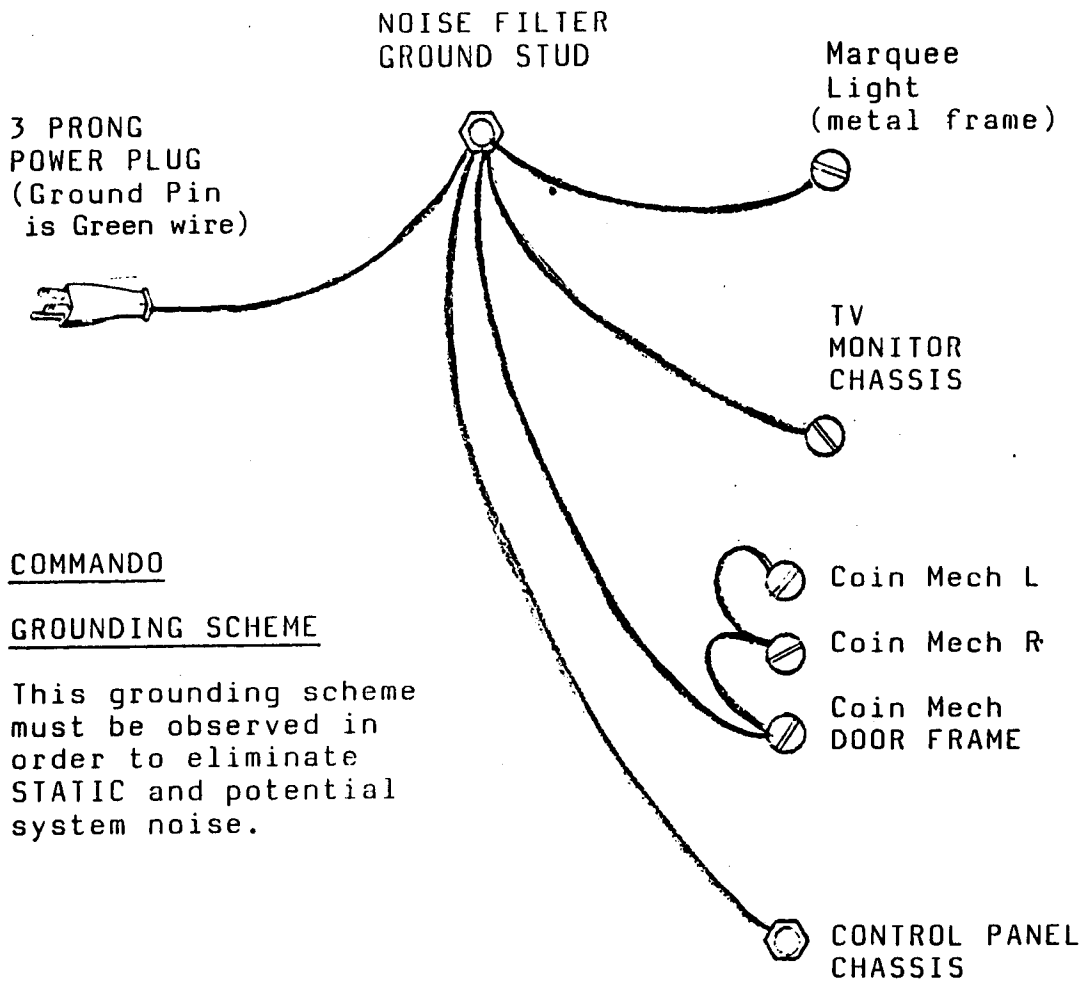
MYSTERIOUS STONES PCB HOOKUP



MYSTERIOUS STONES GENERIC WIRING HARNESS



NOTE: In addition to the mandatory RFI Filter PCB (DE-0209) This PCB MUST be enclosed in the EMI SHIELD provided with the kit. Failure to take BOTH RFI measures may result in Radio Frequency Interference.

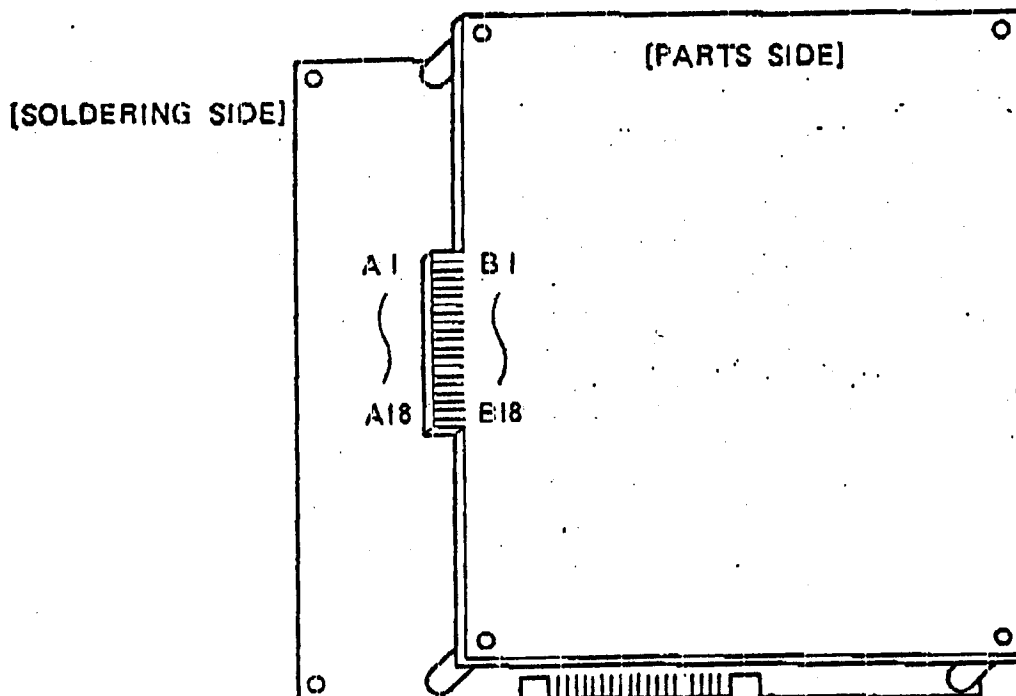


1. Ground wire of 3 prong power plug to be connected to Ground Stud on Noise Filter.
2. Marquee Light metal frame to be connected to ground stud on Noise Filter.
3. TV Monitor Chassis to be connected to ground stud on Noise Filter.
4. Coin Mech L, Coin Mech R and Coin Mech Door Frame to be connected to ground stud on Noise Filter.
5. Control Panel Chassis to be connected to ground stud on Noise Filter.
6. All connections must have good mechanical & electrical bond.
7. All connections to be made with #18 or larger green wire.

CONNECTING DIAGRAM

MYSTERIOUS STONES PCB

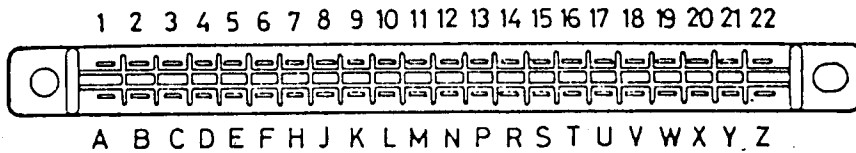
SOLDER SIDE		PARTS SIDE	
SIGNAL NAME	PIN No.		SIGNAL NAME
-5V	A 1	B 1	+12V
SPEAKER	A 2	B 2	SPEAKER
1P SHOOT 1	A 3	B 3	1P UP
1P RIGHT	A 4	B 4	1P LEFT
1P START	A 5	B 5	2P START
2P SHOOT 1	A 6	B 6	2P UP
2P DOWN	A 7	B 7	
2P LEFT	A 8	B 8	2P RIGHT
COIN COUNTER 1	A 9	B 9	1P DOWN
COIN 2	A10	B10	COIN 1
	A11	B11	COIN COUNTER 2
1P SHOOT 2	A12	B12	2P SHOOT 2
VIDEO GREEN	A13	B13	VIDEO BLUE
VIDEO RED	A14	B14	VIDEO SYNC
	A15	B15	
GND	A16	B16	GND
GND	A17	B17	GND
+5V	A18	B18	+5V



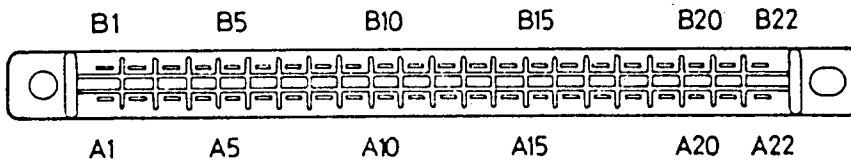
MYSTERIOUS STONES

GENERIC HARNESS PIN-OUTS

a) CONNECTOR CR7E-44DA-3.96E (HIROSE) 3.96mm



b) CONNECTOR 1168-044-009 (KEL) 3.96mm



COMPONENT SIDE			SOLDER SIDE		
Pin Nos	KEL	Signal	Pin Nos		Signal
				KEL	
1	B1	1P DOWN	A	A1	2P DOWN
2	B2	1P UP	B	A2	2P UP
3	B3	1P LEFT	C	A3	2P LEFT
4	B4	1P RIGHT	D	A4	2P RIGHT
5	B5		E	A5	
6	B6		F	A6	
7	B7		H	A7	
8	B8		J	A8	
9	B9	1P SHOOT 1	K	A9	2P SHOOT 1
10	B10	1P SHOOT 2	L	A10	2P SHOOT 2
11	B11	1P GAME SELECT	M	A11	2P GAME SELECT
12	B12	COIN 1	N	A12	COIN 2
13	B13	COIN COUNTER 1	P	A13	COIN COUNTER 2
14	B14	TV.B	R	A14	TV.G
15	B15	SYNC.	S	A15	TV.R
16	B16		T	A16	
17	B17	SPEAKER +	U	A17	SPEAKER -
18	B18	+12V	V	A18	
19	B19	+5V	W	A19	+5V
20	B20	+5V	X	A20	+5V
21	B21	TV.GND	Y	A21	GND
22	B22	GND	Z	A22	GND

MYSTERIOUS STONES

INSTRUCTIONS

- Get the treasure from the "Treasure House" in the ancient ruins.
- Look for the treasures or secrets by kicking. (Right Button)
- Shoot the ghouls and goblins that get in the way (Left Button)
- The ghost is hiding in each room and has the key to the next room.
- When the ghost appears, shoot it and follow arrow of your choice to the next room.
- After getting the treasure, return to the starting point.
- Time limit: 24 hours.

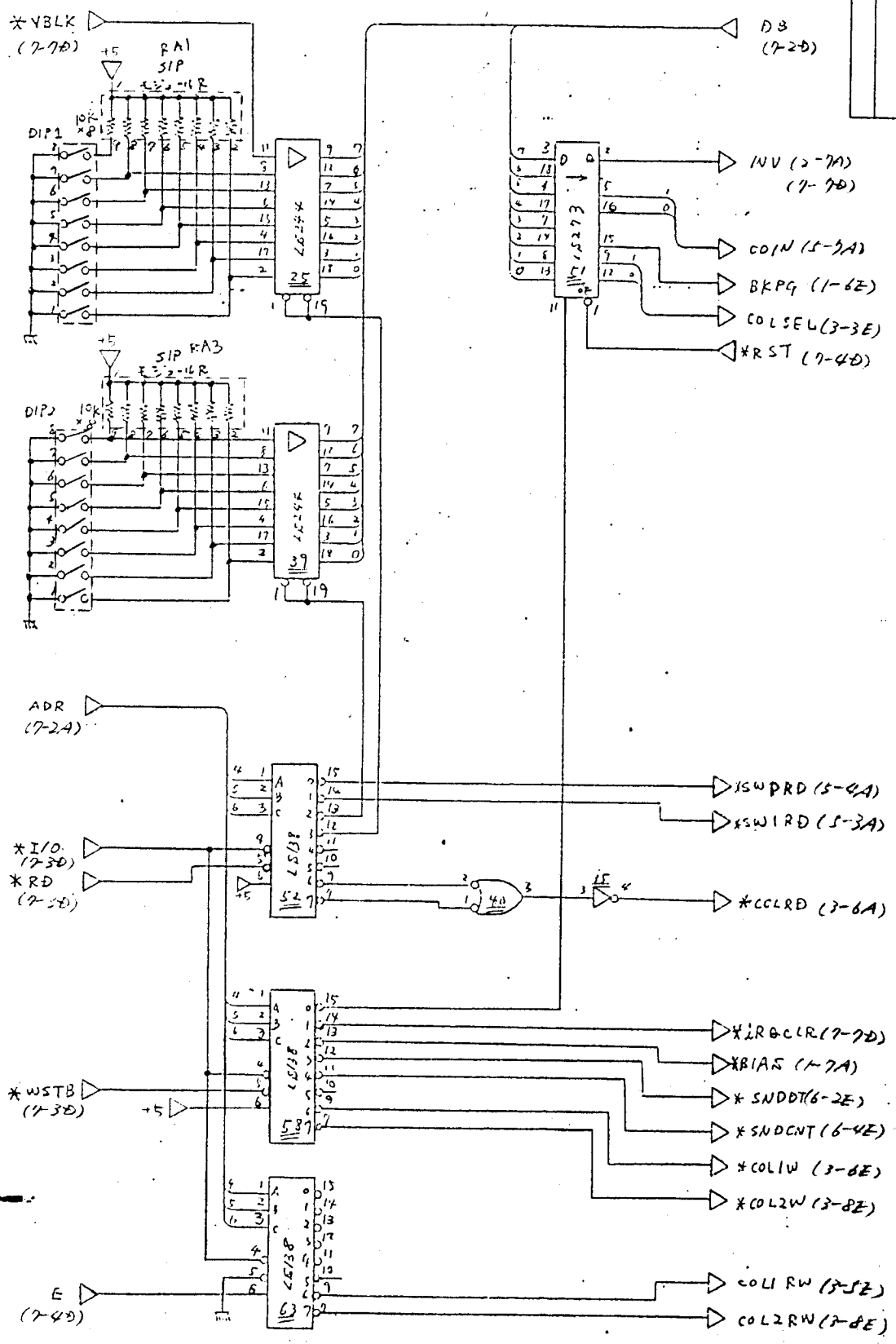
MYSTERIOUS STONES

OPTION SWITCH SETTINGS

<u>DIP SWITCH #1</u>	1	2	3	4	5	6	7	8
1 Coin 1 Credit	OFF	OFF	OFF	OFF				
1 coin 2 credit	ON	OFF	ON	OFF				
1 coin 3 credit	OFF	ON	OFF	ON				
2 coin 1 credit	ON	ON	ON	ON				
INVERT SCREEN						OFF		
NORMAL SCREEN						ON		
COCKTAIL TABLE							OFF	
UPRIGHT MACHINE							ON	

<u>DIP SWITCH #2</u>	1	2	3	4	5	6	7	8
3 lives	OFF							
5 lives	ON							
Difficulty - easy		OFF						
Difficulty - hard		ON						
Attract mode sound on			OFF					
Attract mode sound off			ON					

圖通番号	仕様、名称
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MYSTERIOUS STONES top bd

社外秘

出図
60.6.4
子-9-1-1
開発室

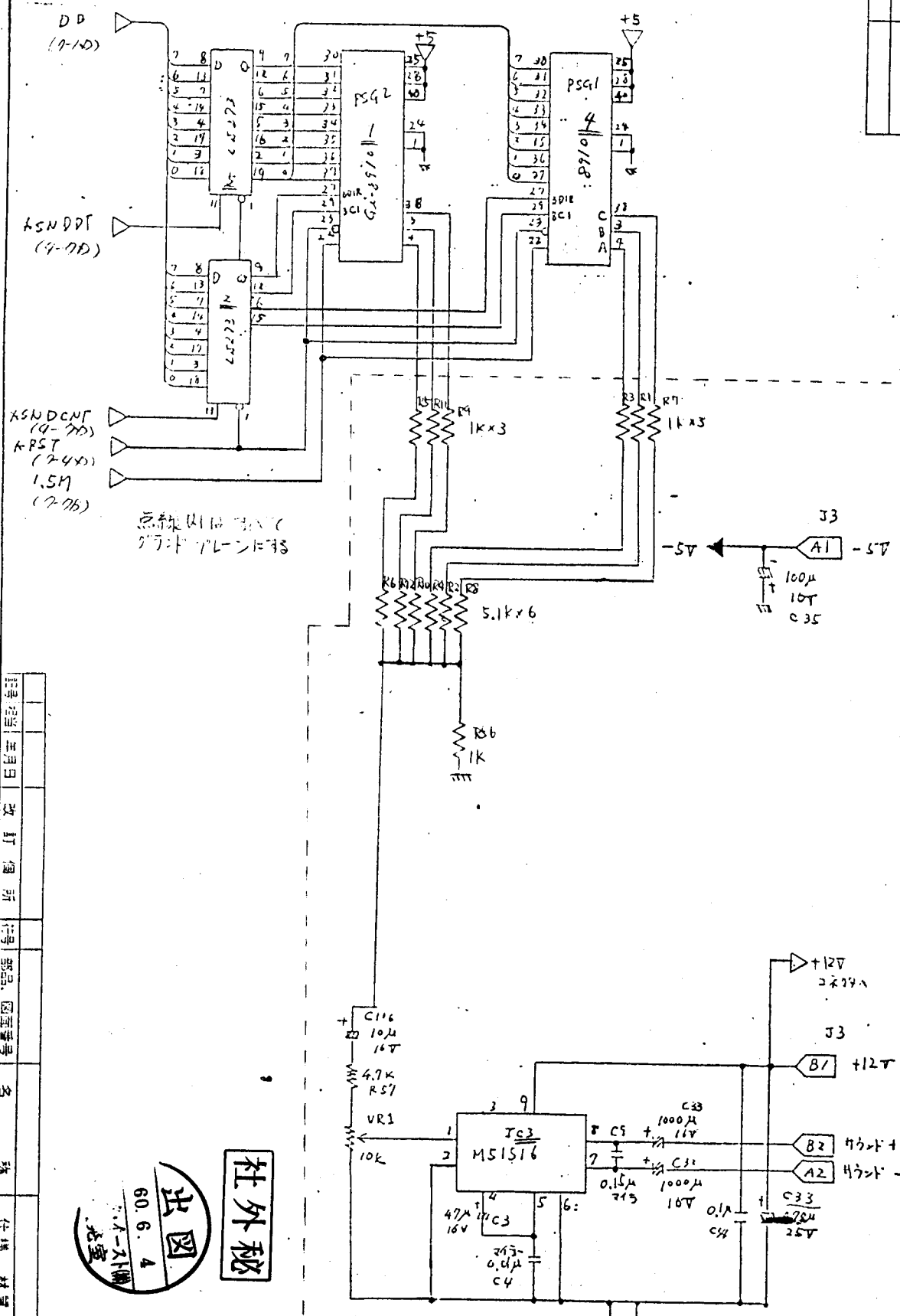
記事

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宝野	宝野							TA-0010-P2-1	
長田	長田							BKS-0/回路図	
小川	小川							K-100842	

第3角法

子-9-1-1 開発室

回路番号	仕様、名称



接続図は別紙にて
プリントアウト

社外秘

出図
60.6.4
A-A-大橋
忠実

記事

材料	年月日	改訂箇所	部号	部品、図面番号	名称	仕様、材質
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材料					BKIS-S/回路図	
材料					K-10847	

第3巻

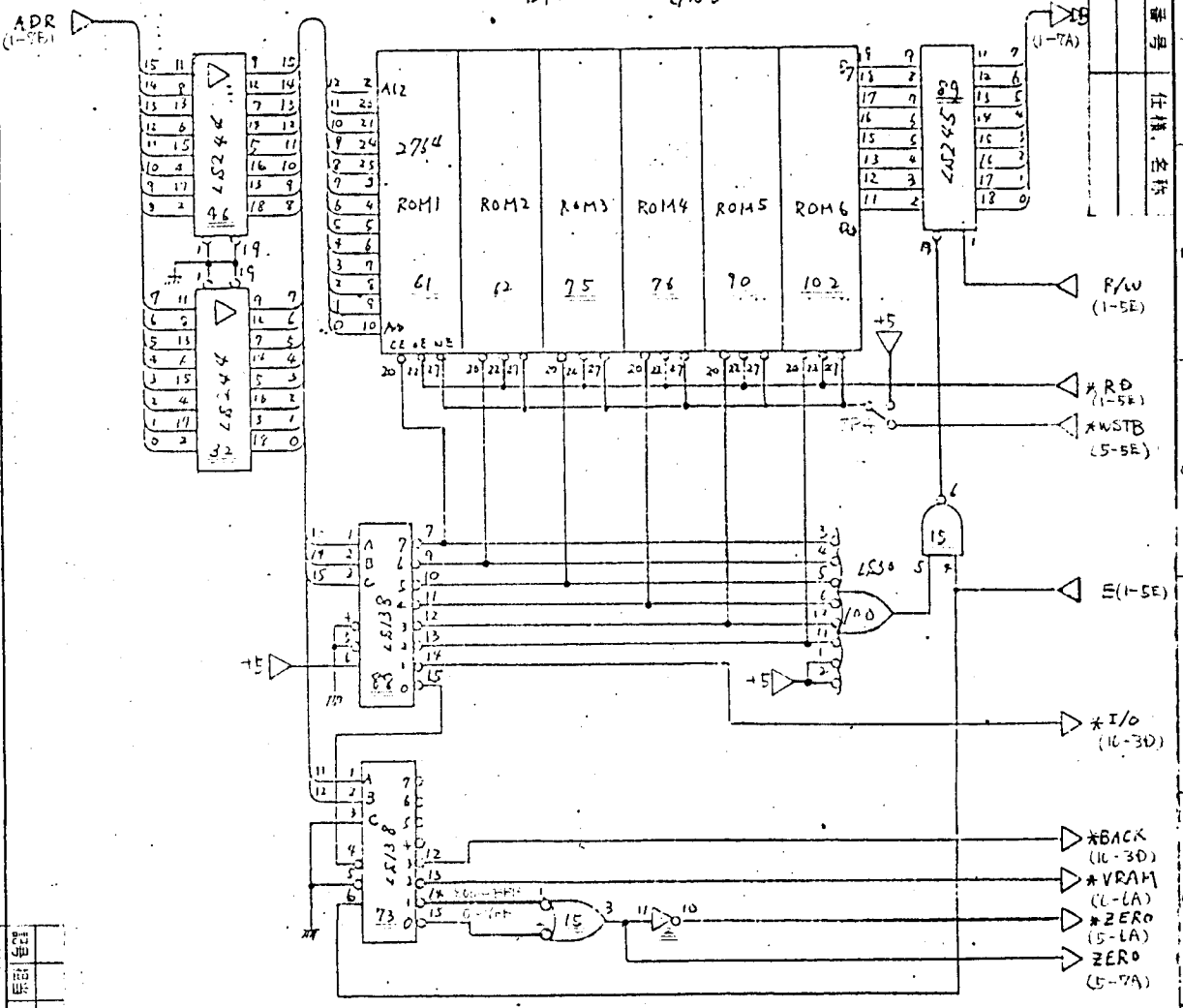
子子子子子子子子

MYSTERIOUS STONES top bd

開通番号 仕様、名称

注) 2764は ROMの動作電源に主入る事

2764 #28,26.1 VCC
#14 GND



ADR (1-5E)

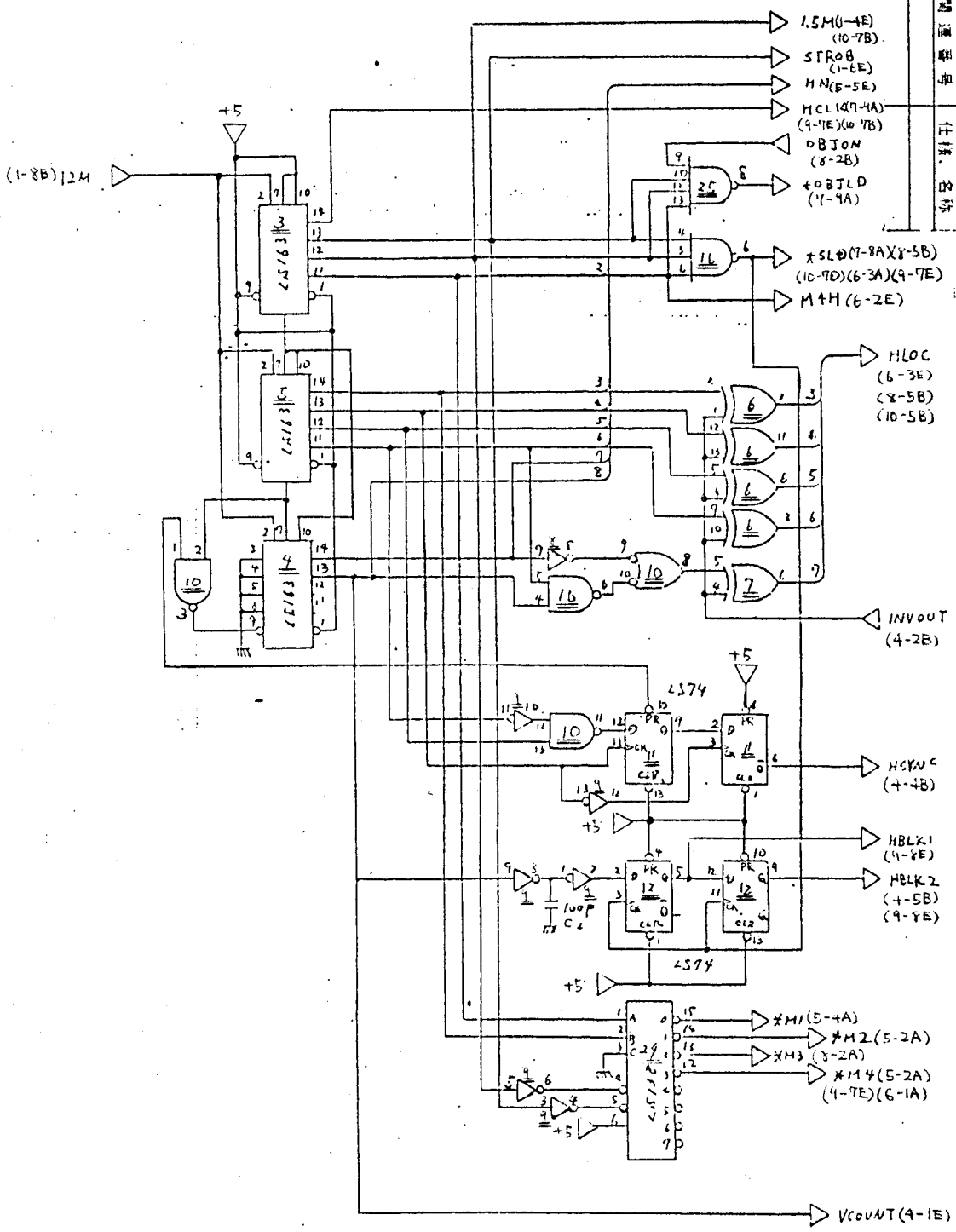
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材料		処理					IA-001C-PI	

承認	検印	社印	担当	単位	印加	図番
5/11/86	5/12/86	5/12/86	長田	尺	/	K-10348

社外秘

出図
50.6.4
子-夕-イ-不備
開卷室

開運番号 仕様 名称



記事

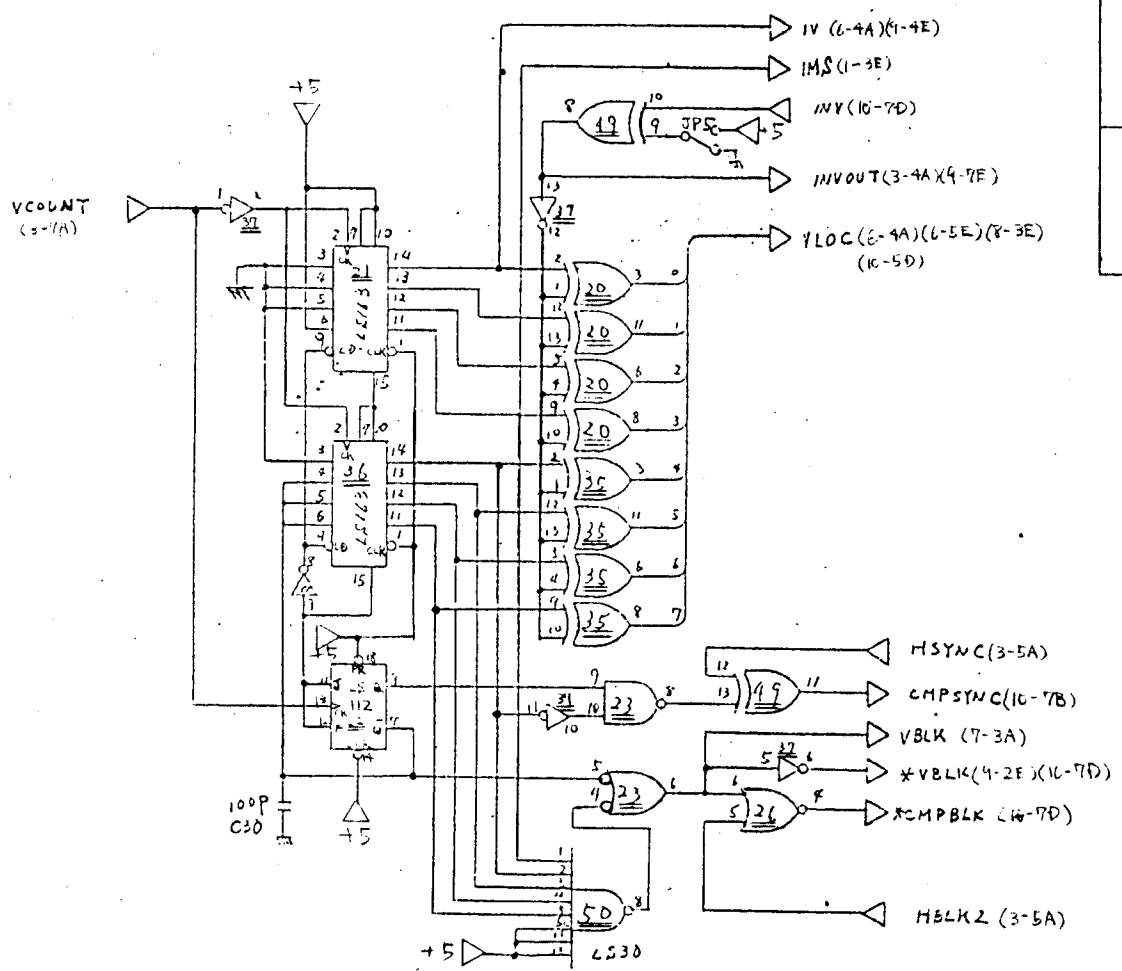
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星野		処理			MPX-01 回路図	

承認	検印	検印	担当	単位	図番
星野	星野	星野	長田	mm	14-10848

社外秘

出図
60.6.4
子-9-1-1-1
開発室

関連番号	仕様名称
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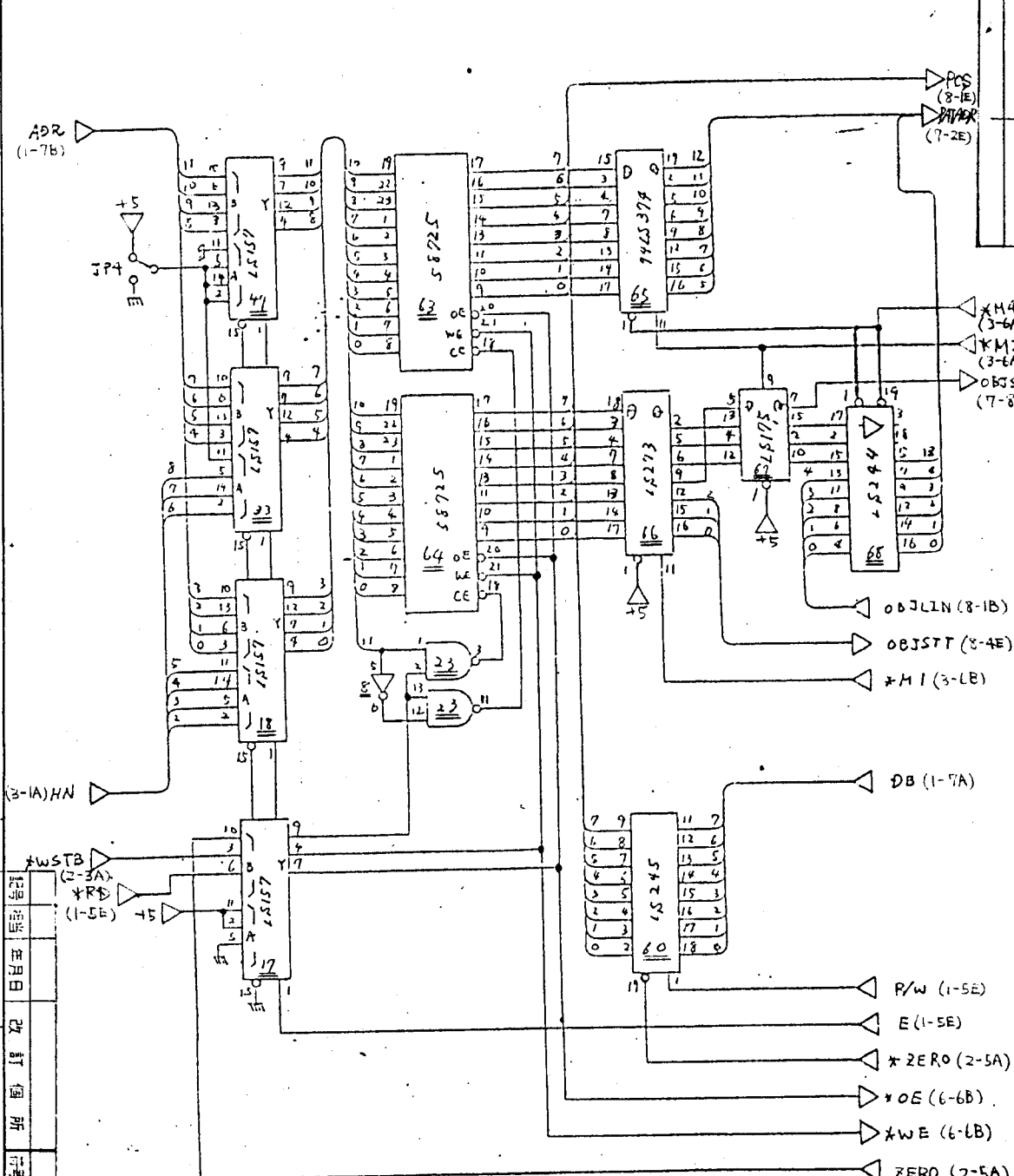
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材料	年月日	改訂箇所	符号	部品、図面番号	名称	仕様、材質
TA-0010-P1					MPX-01 回路図	

担当者	検査	承認	年月日	公差	単位	図番
長田				mm		K-10848

社外秘
出図
60.6.4
子-夕-イ-不機
開発室

関連番号 仕様、名称



記事

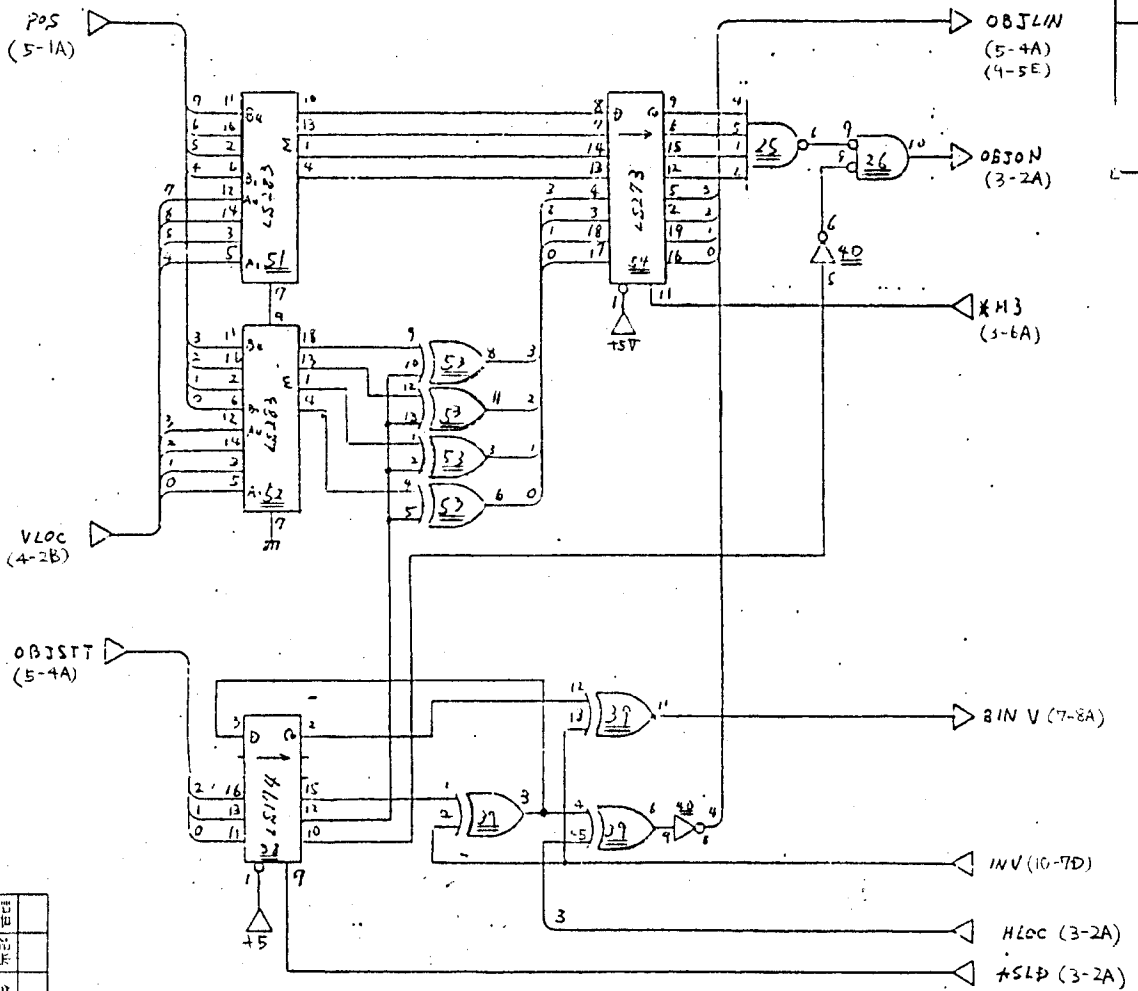
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材料		処理		公差	名称		
星野		長田		MPX-01 回路図	TA-0010-P1		
星野		長田		MPX-01 回路図	K-10848		

第3角法

子-9.1-1機 開発室

社外秘
出図
60.6.4
子-9.1-1機
開発室

開運番号 仕様, 名称



記号

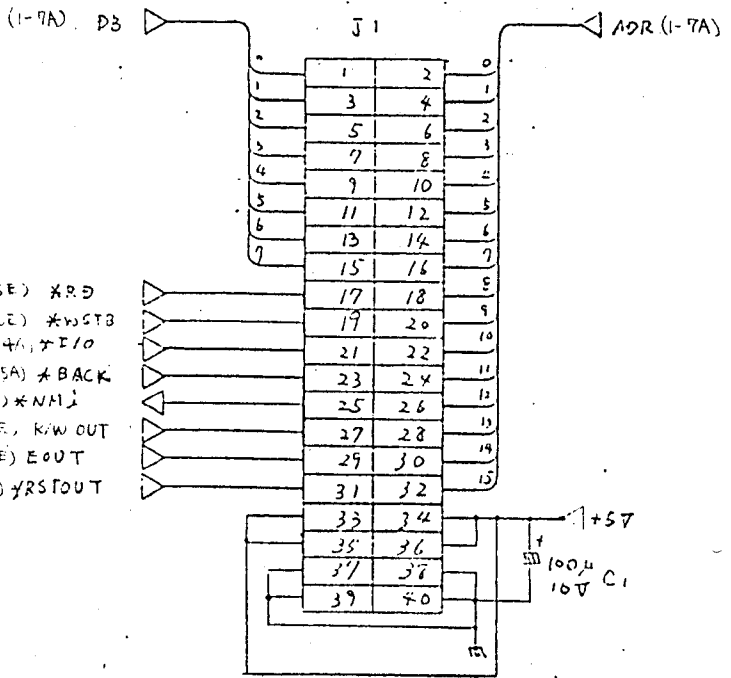
第3角法

記号	年月日	改訂箇所	番号	部品	図面番号	名称	仕様, 材質
材料		処理		公差		MPX-01 回路図	
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59.11.26							

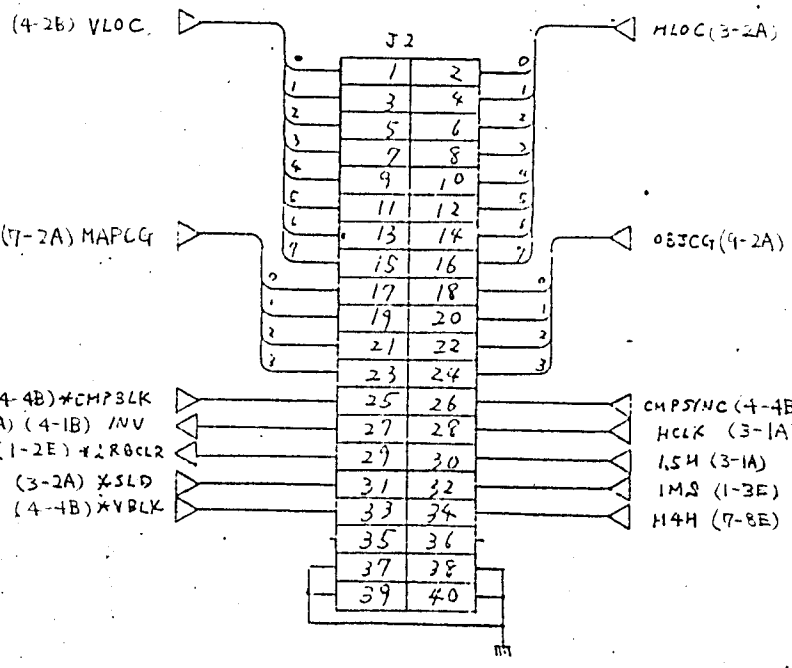
社外秘

出図
60.6.4
子-夕-1-1-1
開発室

関連番号 仕様、名称



- (1-5E) XRD
- (1-6E) *WSTB
- (2-4A) *I/O
- (2-5A) *BACK
- (1-3E) *NH
- (1-4E) *KW OUT
- (1-4E) EOUT
- (1-1A) *RSTOUT



- (4-4B) *CHPBLK
- (9-7E) (8-5A) (7-8A) (4-1B) INV
- (1-2E) *2R0CLR
- (3-2A) *SLD
- (4-4B) *YBLK
- CHPSYNC (4-4B)
- HCLK (3-1A)
- 1.5M (3-1A)
- IM8 (1-3E)
- H4H (7-8E)

社外秘



50PIN 73より18月 41-50は OPEN とす。

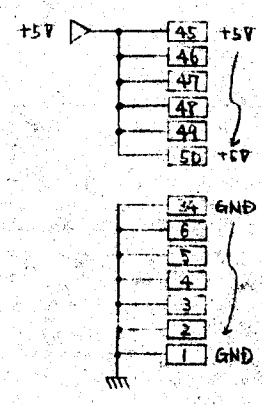
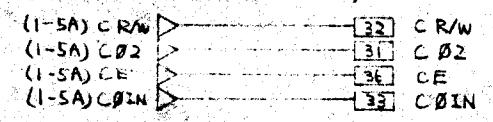
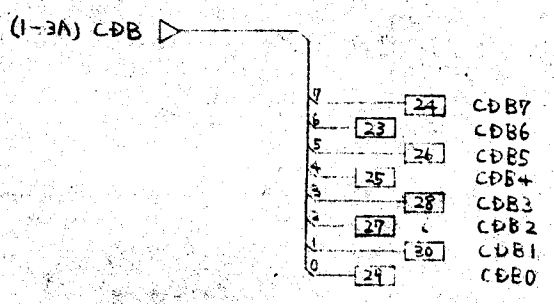
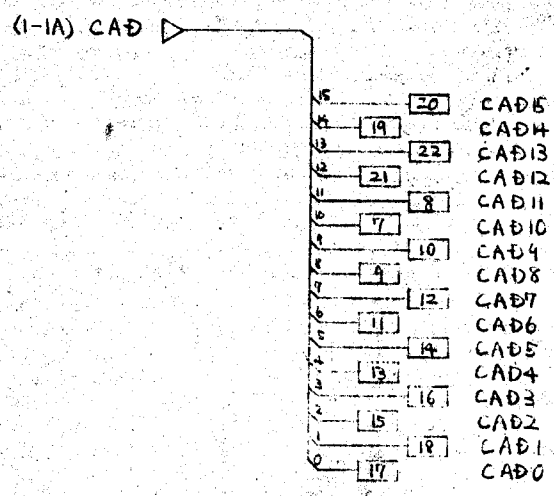
記号	記号	記号	記号	記号	記号	記号	記号	記号	記号
担当	年月日	改訂	個所	符号	部品	公差	部品	公差	部品
材料		処理							
名称	名称	名称	名称	名称	名称	名称	名称	名称	名称
TA-0010-PI	TA-0010-PI	TA-0010-PI	TA-0010-PI	TA-0010-PI	TA-0010-PI	TA-0010-PI	TA-0010-PI	TA-0010-PI	TA-0010-PI
仕様、材質	仕様、材質	仕様、材質	仕様、材質	仕様、材質	仕様、材質	仕様、材質	仕様、材質	仕様、材質	仕様、材質

承認	承認	承認	承認	承認	承認	承認	承認	承認	承認
年月日	年月日	年月日	年月日	年月日	年月日	年月日	年月日	年月日	年月日
担当者	担当者	担当者	担当者	担当者	担当者	担当者	担当者	担当者	担当者
長田	長田	長田	長田	長田	長田	長田	長田	長田	長田
単位	単位	単位	単位	単位	単位	単位	単位	単位	単位
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
図番	図番	図番	図番	図番	図番	図番	図番	図番	図番
K-10848	K-10848	K-10848	K-10848	K-10848	K-10848	K-10848	K-10848	K-10848	K-10848

第3角法

ナナエー株式会社

関連番号	仕様, 名称



J4

記事

記号	担当	年月日	改訂箇所	番号	部品	図面番号	名	称	仕様	材質

承認	検図	検図	担当	公差	名称

出図
60.6.4
開発室

社外秘