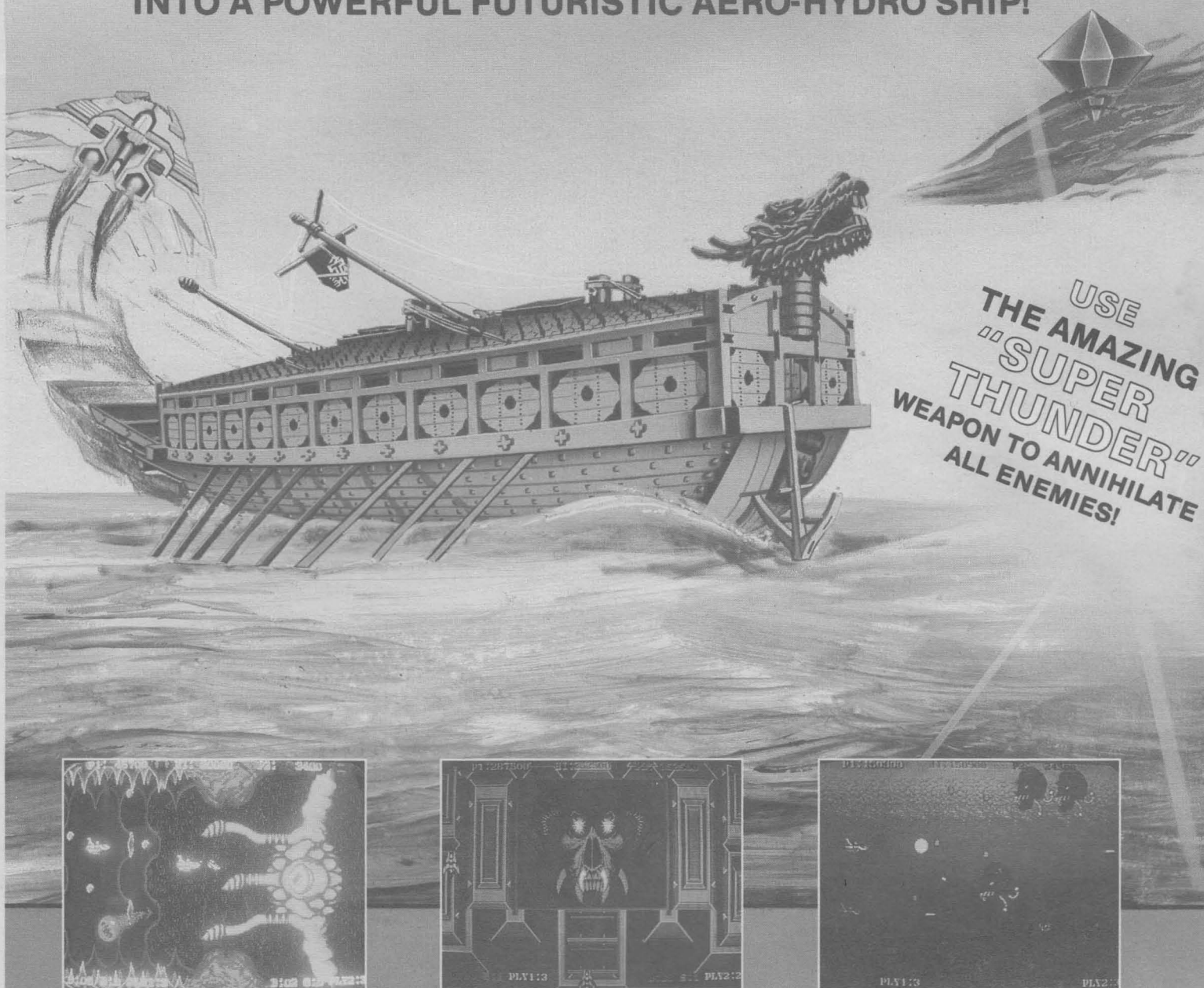


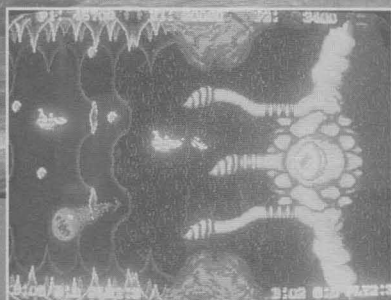
TWO
CAN PLAY
TOGETHER

TURTLESHIP

MIGHTY ANCIENT "TURTLESHIP" MAGICALLY TRANSFORMS
INTO A POWERFUL FUTURISTIC AERO-HYDRO SHIP!



USE
THE AMAZING
"SUPER
THUNDER"
WEAPON TO ANNIHILATE
ALL ENEMIES!



ANOTHER
MONEY MAKER
from ...

SHARP IMAGE
ELECTRONICS, INC.

LICENSED FROM
PHILKO™ ©1988

KIT CONTENT CHECKLIST

- ☐ "TurtleShip" P.C.B.
- ☐ JAMMA Standard Wiring Harness
- ☐ Universal P.C.B. Holder
- ☐ (2) Joysticks - 8 Way
- ☐ (8) Buttons
- ☐ (8) Switch/Holders
- ☐ (8) Pal Nuts
- ☐ Mounting Hardware
- ☐ Marquee Plexi
- ☐ Control Panel Overlay
- ☐ Button Stickers
- ☐ (2) Side Decals
- ☐ Monitor Cardboard
- ☐ Control Panel Clear Plexi
- ☐ Instruction Manual

TOOLS NEEDED FOR CONVERSION

Paint - Black or Gray
Sandpaper
Drill - Electric Type
Drill Bits
Soldering Gun
Resin Core Solder 60/40
Screwdrivers
Pliers
Razor Knife
Windex (or similar)
Squeegee or Cardboard
Small File
Masking Tape
Rags
Ground Braid Wire
Vacuum Cleaner

— WARRANTY & SERVICE —

Sharp Image warrants the parts contained in this conversion kit "TurtleShip" for a period of 90 days from date of purchase. Proof of purchase may be required for service. Any UNAUTHORIZED repair voids warranty.

— WARRANTY REGISTRATION —

Sharp Image will warrant the parts contained herein ONLY after the Warranty Registration Card is completely filled out and mailed back to our offices. Proof of purchase date may be required for service.

— ADVANCE REPLACEMENT POLICY —

Sharp Image will provide advance replacement service to its distributors ONLY! If you require an advance replacement for a defective part, contact the Sharp Image Distributor where this product was purchased. Sharp Image MAY at the request of its distributor, send an advance replacement direct to its customer for quicker service. The distributor will be invoiced for the A.R. and credit will be issued ONLY upon receipt of the defective part. No exceptions!

— RETURN AUTHORIZATION —

Sharp Image requires that any returns for service repair or replacement MUST be accompanied by a Return Authorization number. Please call (818) 767-8855 and ask for "Return Authorization Dept." They will gladly assist your needs. Returns without R.A. number cannot be honored.

— GAME DESCRIPTION - THE STORY —

During an ancient time a proud people built an invincible battleship in order to protect peaceful times. This vessel was the legendary "TurtleShip". Universally feared and hugely successful, the giant ship was justice for troubled times.

Now in modern times, mankind has armed himself to the teeth and allowed himself to be overrun by the very weapons he created to protect himself. Nuclear destruction is evident not only for the world we live in, but also for the entire universe as well. An evil tyrant named 'Demon' has pledged total annihilation of the universe unless mankind surrenders to his rule.

In an instant, a flash of light occurs and the spirit of the ancient "TurtleShip" manifests itself merging with modern technology until the last hope for mankind has finished its transformation.

TurtleShip now speeds away on its quest to save the universe from 'Demon'. Its travel will span many strange and unusual planets as well as deep oceans and dark outer space. 'Demon' has been located on a planet light years away, but at this very moment "TurtleShip" races there for the final confrontation!

— GAME - HOW TO PLAY INSTRUCTIONS —

1. Control "TurtleShip" using 8 way joystick.
2. Push "SHOOT" button for gunfire.
3. Push "MISSILE" button to launch missiles.
4. Push "SUPER THUNDER" to use exciting new weapon.
5. Destroy enemies that appear throughout game play.
6. Pick up squares with "Letters" or "Numbers" in order to gain POWERFUL NEW WEAPONS or BONUSSES.
7. At the end of each round a super strong enemy will appear. Defeat this enemy to advance to next stage.
8. At the end of round eight the Final enemy "Demon" will appear. Defeat this enemy to save the universe.

— CONTINUE PLAY FEATURE —

"TurtleShip" is a long adventure game. It would not be possible for a player to experience the entire game on a single coin. A "continue play" feature is included so that players may journey as deep into the action as they may like. This will insure strong and steady earnings over an extended location life cycle.

— BUY IN FEATURE —

A feature is included in "TurtleShip" that allows a second player to join in any current game in progress without waiting for the game in play to end.

— SUPER THUNDER WEAPON —

During game play, shoot all enemies and blocks will appear to offer "POWER - UP" weapons or BONUSSES. Blocks with **ST** can be stored in the bottom corner of the screen shown as "S:". The number of these stored will allow the number of times "SUPER THUNDER" can be used. "SUPER THUNDER" is an all devastating weapon that wipes out every enemy on the screen except for the largest-strongest ones. Since it does not destroy the large enemies, it does clear the screen of smaller ones allowing players to concentrate on the harder foes.

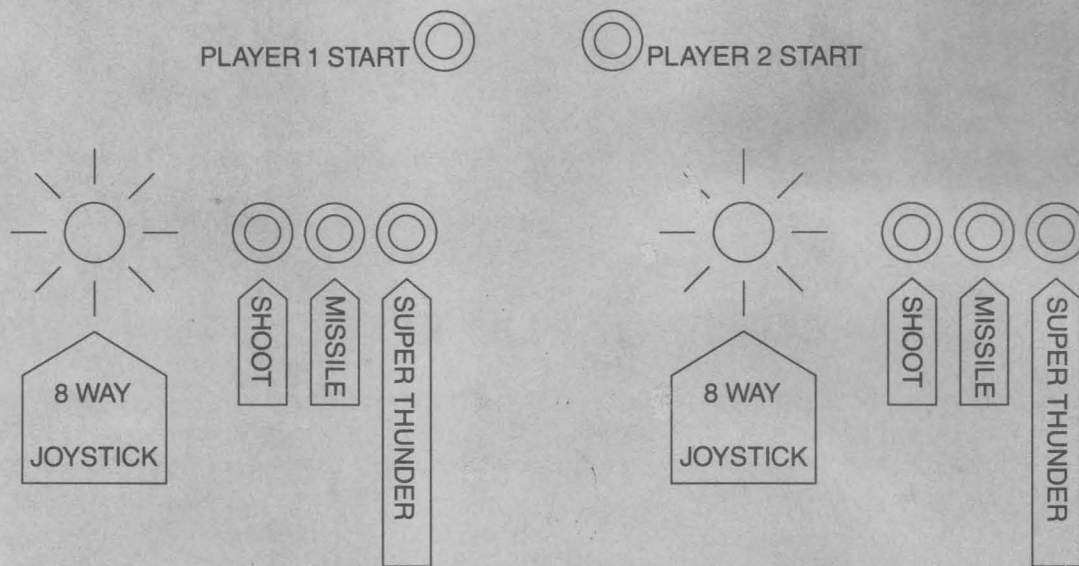
— POWER REQUIREMENTS —

The printed circuit board included in this kit requires +5 voltage and +12 voltage. The +5 voltage should be exactly 5V. For this P.C.B. 5.2V is OK, but no higher than this and no lower than 5.0V. This should be rated at 7 amps. +12V should be rated at 1 amp.

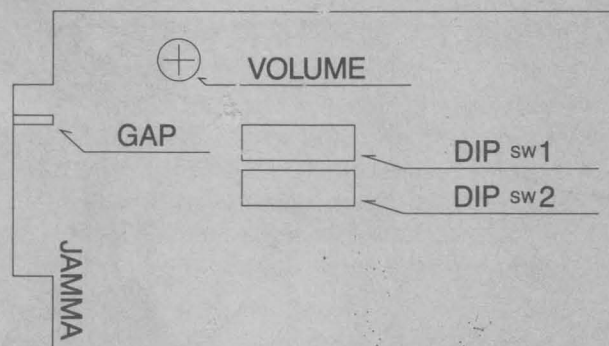
— MONITOR REQUIREMENTS —

This printed circuit board requires interfacing with NEG(−) composite sync. Most monitors have provisions for composite sync. Some monitors require that the vertical and horizontal negative sync be tied together in order to achieve a composite signal. For best results consult the monitor manufacturer or the distributor service department where this kit was purchased.

CONTROL PANEL LAYOUT



• DIP SW POSITION



TURTLE SHIP DIP SWITCH INDEX

DIP SW 1

[illegible]

DIP SW 2

[illegible]

CABINET PREPARATION

— CABINET —

After you have decided which game cabinet you will use to install this kit into, strip the exterior of all replaceable items. These include: marquee, side decals, control panel, etc . . . Side decals can be removed using a scraper or by peeling them. The remaining glue may be removed using lacquer thinner. Sand cabinet sides and front using sandpaper and then clean them entirely with soapy water. Rinse with clean water and allow to properly dry. Select an appropriate color of paint (black or gray) and cover with several coats. Let these coats dry properly to insure best results. The cabinet is now ready for completion!!

— SIDE DECALS —

Take the new TurtleShip side decals and peel the backing paper. Spray the decals adhesive side up, with windex (or similar). Spray the cabinet sides thoroughly as well. Position the decals into place and then using a soft squeegee (or piece of cardboard) starting at the middle, slowly and evenly press out the excess foam until you achieve a smooth finish. This procedure has been found to be the most effective way of ensuring the proper positioning of the decals as it creates maneuverability of the decal and is an added protection against the decal coming loose or creasing during application. Allow to set 2-3 hours.

— CONTROL PANEL —

Take the control panel previously removed and take off the old buttons, switches, joystick and wiring. Strip off the older lexan overlay and any vinyl button stickers. Using sandpaper, prepare the control panel surface until all remains of the previous material are gone. Lacquer thinner might be necessary if glue is still present. Clean the surface with soapy water, and then thoroughly rinse it. Dry the control panel completely! (Now is a good time for some coffee or a coke). After refreshing yourself, you can begin the next step.

Use the CONTROL PANEL TEMPLATE included in this kit. Lay it on the control panel centering at the joystick location. Mark the necessary holes, then drill as needed. Be sure to file them to a smooth finish. If you are working with a metal control panel, heat it up with a heat gun or a room heater (if possible). Take the overlay and remove the paper backing. Heat it up as well with a heat gun or hair-dryer. Place the overlay carefully over the control panel and firmly bond them together. Using a razor knife, carefully cut out all the holes for the new controls.

Next, install the button stickers to their proper locations. Install the new buttons, switches and be sure to use the joystick that is provided with this kit. This joystick is perfectly matched to perform properly with this game. The older joystick MAY NOT be suited for this game causing less earnings for you, so install the model that we have included.

After the new buttons and switches are properly installed, and the new joystick has been carefully installed, wiring can proceed. Use the WIRING DIAGRAM section of this manual to match the various functions such as "SHOOT", "MISSILE", "UP", "DOWN", "LEFT", "RIGHT", etc., to the proper switches and then solder them using RESIN core solder. It is always a good idea to solder a continuous BLACK ground wire to all the switches first. After this has been done the control panel is now ready!

— WIRING TO POWER SUPPLY —

As mentioned in the section POWER REQUIREMENTS, this game uses +5V and +12V DC. Chances are the cabinet you are converting has a proper working power supply that is able to supply these voltages. If not, it is a good idea to install a new, inexpensive 'switching' power supply available from your local distributor. Locate the +5V leads color coded RED, and install them to the proper position on the power supply. Next, locate the +12V leads color coded YELLOW, and install them to the proper position on the power supply as well. Last, position a BLACK ground wire from the harness and connect it. The game is now wired for power.

— WIRING THE SPEAKER —

Locate the proper color coded wires for audio output, and solder them to the cabinet speaker. Easy wasn't it?!

— WIRING THE COIN MECH —

Locate the WHITE color coded wire at position #16 as well as a BLACK ground wire and connect them to the two coin door switches. First inspect the present wiring and determine if these wires can be 'spliced' together with the new ones in order to avoid complications that can arise from rewiring these switches. The logic here is that most coin switches have three possible wire locations: GND (ground); NC (normally closed); and NO (normally open). Be sure after connection that the game 'coins' properly.

— GROUND SYSTEM —

It is highly recommended that installation of a continuous GROUND wire be installed that is connected to every electronic component, such as: shield to, PCB to, power supply to, coin door to, control panel to, etc . . .

— MARQUEE PLEX —

This is also referred to as a 'header' or 'logo'. The size we have included in this kit is 9 $\frac{1}{2}$ " x 24 $\frac{1}{2}$ ". This should certainly be ideal for the cabinet you are converting. Using the old marquee from the previous game, lay it on top of the new one. Be sure that none of the title 'TurtleShip' is excluded before marking it to the proper size. Once this is done, proceed to cut it. Unless you process the equipment to safely cut the plexiglass, we recommend taking it to a local plastics supply to do the job. They usually charge no more than a couple of dollars and you can insure it will be done right and without breakage. After the plexi is cut, install it!

Now is also a good time to inspect the lighting system. If the bulb(s) is old, replace it! This will insure a 'shining' and bright advertisement to lure paying customers to your newest game.

— MONITOR CARD —

We have included an attractive, new monitor cardboard to complete the new game look! Why is it cardboard? Why isn't it plexi-glass!? That's a very good question and it deserves a good answer! First of all, many games come with 'glass' in front of the TV monitor to begin with. Second, plexi-glass can quickly 'dull' after repeated cleanings. Third, it would require more 'cuts' to position the marquee. Hopefully, this answers that question.

Well now, properly position the 'card' under the existing glass and easily cut it using a razor-knife. LOOKS GREAT!!

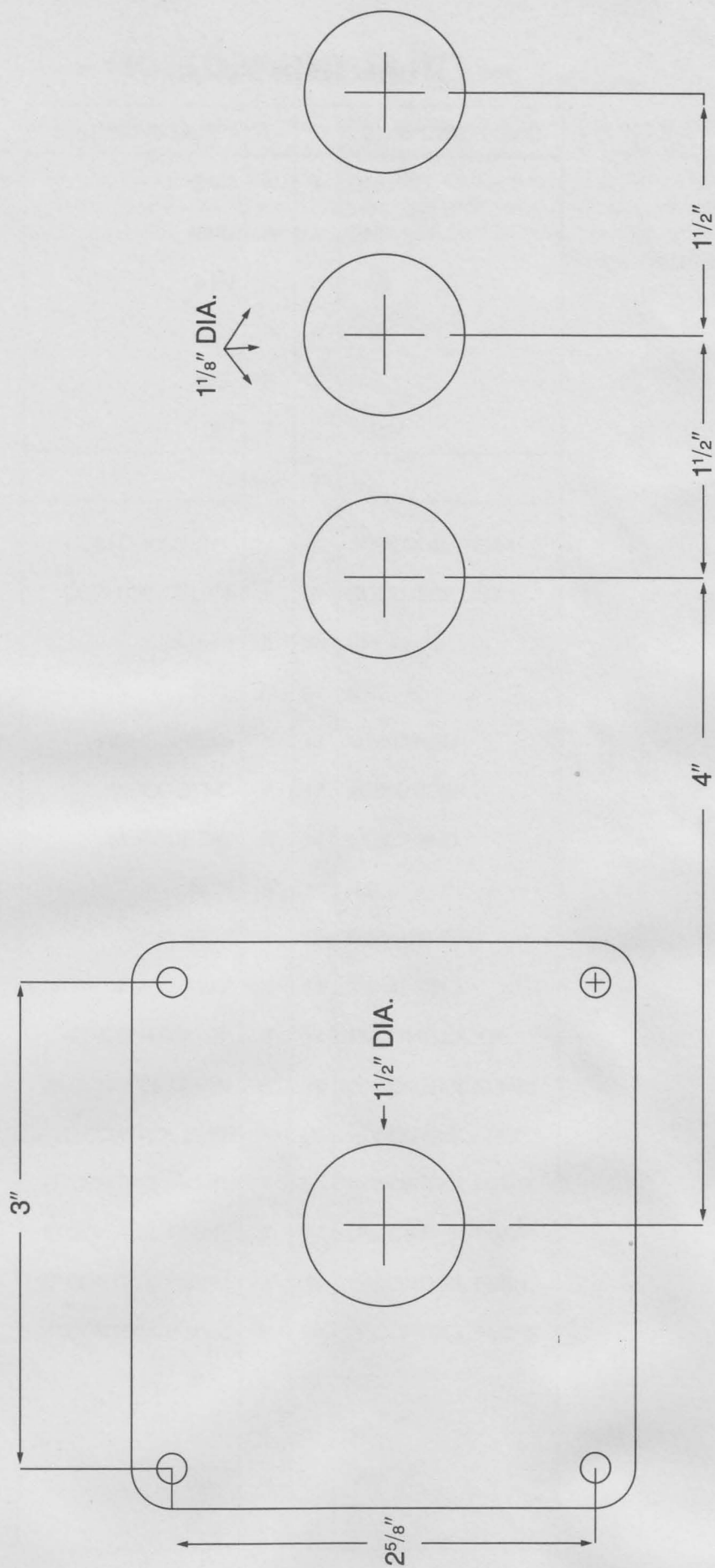
— FINAL INSPECTION —

Believe it or not, you're almost ready to debut your fantastic, new video game!! WAIT, don't power up just yet. Re-check ALL soldered connections. Especially the ones to the power supply! After a final inspection of all connections, turn power on. Listen for audio to be sure the sound is OK. Smell and look for smoke in case something is cooking. If everything is OK, you're ready to play the game. Be sure 'TurtleShip' moves in all the proper directions as well as "shoots" or "fires missiles" when proper buttons are pushed!?

NOTES

JOYSTICK & BUTTONS

TEMPLATE



JOHN JACK & SONS LTD

LESTER

JAMMA STANDARD

SOLDERING SIDE			COMPONENT SIDE
GND	A	1	GND
GND	B	2	GND
+5V	C	3	+5V
+5V	D	4	+5V
N.C.	E	5	N.C.
+12V	F	6	+12V
	H	7	
COIN COUNTER 2	J	8	COIN COUNTER 1
COIN LOCK OUT 2	K	9	COIN LOCK OUT 1
SP(-)	L	10	SP(+)
N.C.	M	11	N.C.
VIDEO GREEN	N	12	VIDEO RED
VIDEO SYNC	P	13	VIDEO BLUE
SERVICE SW	R	14	VIDEO GND
N.C.	S	15	N.C.
COIN SW 2	T	16	COIN SW 1
START SW 2	U	17	START SW 1
2P CONTROL UP	V	18	1P CONTROL UP
2P CONTROL DOWN	W	19	1P CONTROL DOWN
2P CONTROL LEFT	X	20	1P CONTROL LEFT
2P CONTROL RIGHT	Y	21	1P CONTROL RIGHT
2P CONTROL PUSH1	Z	22	1P CONTROL PUSH1
2P CONTROL PUSH2	a	23	1P CONTROL PUSH2
2P CONTROL PUSH3	b	24	1P CONTROL PUSH3
N.C.	c	25	N.C.
N.C.	d	26	N.C.
GND	e	27	GND
GND	f	28	GND

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