FIELD CONVERSION KIT
TRON TO TWO TIGERS U.R.

Bally

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The following instructions will guide you through converting your TRON game to a TWO TIGERS game.

Refer to TRON PARTS AND OPERATING MANUAL pages 5-2, 5-3, 5-4, and 5-5.

NOTE: Some parts are used again, save all parts and hardware.

1. Turn game off, unplug it from its' power source, and open all its' access doors.

2. Remove item 3, HEADER RETAINER-UPPER. Remove HEADER and PLASTIC EDGE PROTECTOR. Save for use with new header.

3. Disconnect control panel cable connectors and ground strap. Release control panel locking clamps - remove control panel.

4. Working on underside of control panel - disconnect pin connector from P.C. board at Optical Encoder Disc Assembly. Loosen set screws with 5/64 allen wrench to remove knob and shaft.

   Remove (4) hex nuts with 3/8 nut driver. Relocate OPTICAL ENCODER DISC ASSEMBLY on new control panel. Reinstall Knob and Shaft - tighten (2) set screws to lock shaft. Connect pin connector to P.C. board.

   New control panel is complete. Set aside until Step 20.

5. Remove fasteners and WINDSHIELD RETAINING BRACKET, item 8. Remove items 9 and 10, CONTROL SHELF LIGHT ASSEMBLY and LAMP PROTECTOR.

6. Remove (4) fasteners securing top of WINDSHIELD, item 7 in place. It may be necessary to pry left and right side of Windshield while pulling it out through front of cabinet.

7. Carefully lift out VIEWING GLASS, item 17. Note wood cleats glass rests on - these cleats are removed as described in Step 12.

8. Remove BEZEL and PLEXI GLASS ASSEMBLY. Bezel and screws will be reattached after monitor relocation. NOTE: Smoked Plexi is not used on TWO TIGERS kit.

9. At upper rear of cabinet remove SCENERY LIGHT ASSEMBLY, item 6. Be sure to disconnect connector.

10. Remove ILLUMINATED REAR SCENE and SCENERY BRACKET, item 7.

   C A U T I O N ! !
   FOR MONITOR REMOVAL AND INSTALLATION IT IS ADVISABLE TO OBTAIN HELP.

11. Locate and disconnect the two pin monitor power connector and video cable at chassis' P.C. board. Orientation of video cable connector can be reinstalled only one way. Remove ground wire and cli from chassis. Loosen and remove (4) 1/4-20 Hex. bolts at side brackets. Make sure all cables are cleared from the path of the monitor "U" channels. Grab securely and pull monitor out along side brackets until clear of cabinet. Place monitor in a safe place. Loosen and remove (4) Hex. head bolts from "U" channels on monitor.

12. Remove Side Brackets from plastic locating pins. Save screws for mounting new monitor brackets. Using a hammer and chisel, loosen and remove TRON Glass Support Rails at sides of cabinet. See Illustration.

    Spray any exposed wood areas with flat black paint after rail removal. Position MONITOR LOCATING TEMPLATE over locating pins and mark new locations onto cabinet sides as indicated on template.

13. At these (4) new locations drill 3/8 diameter holes 1/2" deep. Caution - <u>do not</u> drill through cabinet sides.

14. Install plastic locating pins at these new locations.

15. Attach new monitor mounting brackets over locating pins & secure with (8) Hex Hd. wood screws. Flange must face front of cabinet.
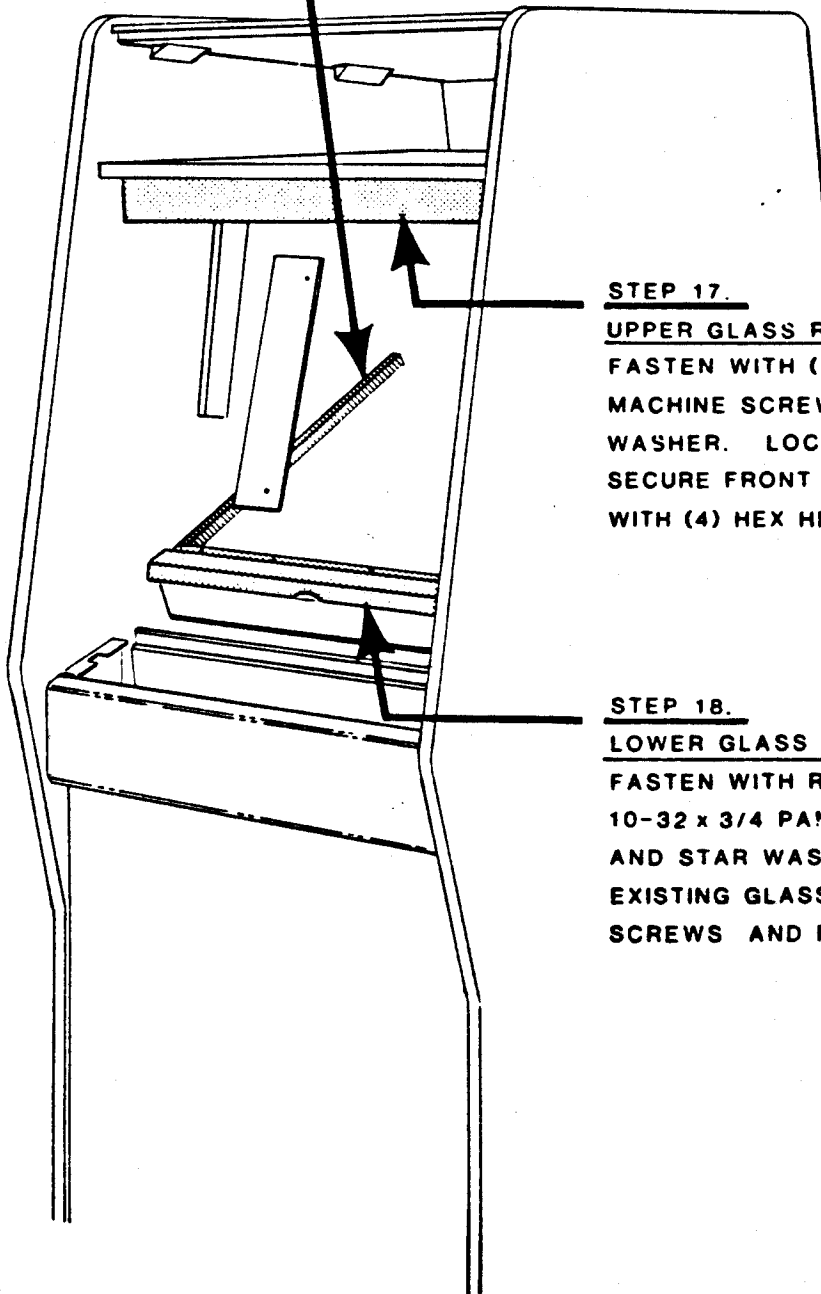
    C A U T I O N ! !
    GET ASSISTANCE FOR MONITOR INSTALLATION.

16. Install monitor horizontally through front of cabinet aligning slots on monitor flanges to holes on new mounting brackets.

    Use self-tapping hex head screws with wahser and 5/16 nut driver to fasten monitor to brackets. Tighten securely. Reattach bezel to brackets <u>without</u> smoked plexi glass.

17. See Illustration.

18. See Illustration.

19. Clean and install Viewing Glass and Header.

20. Guide cables from new control panel into cabinet and connect accordingly. Attach ground strap to control panel. Long cable attaches to pin connector J6 on Super Sound I/O board A082-90913-E000. Secure this cable to master cable using tie wraps. Lock panel in place with clamps.

21. Disconnect and remove the logic board set for EPROM change. Refer to EPROM chart. Set dip switches as indicated.

22. Reassemble logic board set. Install and reconnect all connectors and secure with Block and Bracket Assembly.

23. Replace all access doors.

24. Side decal application - see instructions provided.

STEP 12.

REMOVE 2 TRON GLASS SUPPORT
RAILS AT SIDES OF CABINET.

STEP 17.

UPPER GLASS RETAINING BRACKET
FASTEN WITH (4) 10-32 x 3/4 PAN HD.
MACHINE SCREWS AND EXTERNAL STAR
WASHER.   LOCATE AT EXISTING T-NUTS.
SECURE FRONT END OF RETAINER
WITH (4) HEX HD. WOOD SCREWS.

STEP 18.

LOWER GLASS RETAINING BRACKET
FASTEN WITH REMAINING (4)
10-32 x 3/4 PAN HD. MACHINE SCREWS
AND STAR WASHERS. LOCATE ON
EXISTING GLASS RAIL. FASTEN ALL
SCREWS AND FASTENERS SECURELY.

LIST OF MAJOR PARTS
INCLUDED IN YOUR CONVERSION KIT
TWO TIGERS TO TRON CONVERSION

QUANTITY	PART NO.	DESCRIPTION
1	0C67-00300-0000	FIELD CONVERSION KIT TRON TO TWO TIGERS MANUAL
1	SEE EPROM CHART	EPROMS
1	AA11-00014-0000	VIDEO SIGNAL CABLE ASSY.
1	AC67-00004-0000	CONTROL SHELF ASSY. COMPLETE W/CABLE ASSY.
1	AC67-00016-00XF	GLASS RETAINING ASSY.
1	0C67-00106-0000	GLASS BRKT. LONER
1	0C67-00900-00XF	HEADER
1	0C67-00901-00XF	VIEWING GLASS
2	0537-00903-0022	GLASS CHANNEL 20"
1	0C67-00904-0000	MONITOR LOCATING TEMPLATE
4	0555-00901-0000	LOCATING PINS; PLASTIC
2	0636-00101-0000	RAIL-MONITOR MOUNTING
12	0017-00101-0141	8 X 11 UNS HXW D GIM ST ZN
4	0017-00101-0144	10-24 X 10 SLT HXW DC ST ZN
8	0017-00101-0660	10-32 X 12 SLT BDR U MS ST ZN
2	0C67-00903-0000	SIDE DECALS

DECAL INSTALLATION INSTRUCTIONS

I M P O R T A N T   N O T E:

READ THE FOLLOWING INSTRUCTIONS THROUGH COMPLETELY AT LEAST ONCE **BEFORE** ATTEMPTING TO INSTALL THE DECAL(S) THEY CONCERN!!

THE DECAL(S) ARE COMPOSED OF THREE (3) PARTS: 1)A HEAVY WAXED BACKING SHEET WHICH COVERS THE STICKY SIDE OF THE DECAL, 2) THE DECAL ITSELF, AND 3)A THIN MASKING SHEET WHICH IS ON THE FRONT SIDE OF THE DECAL TO PROTECT IT AND TO AID IN ITS INSTALLATION.

* * * * * * * * * * * **TO INSTALL THE DECAL(S), PROCEED AS FOLLOWS:** * * * * * * * * * * *

1. **BE SURE** THE AREA WHERE YOU ARE GOING TO APPLY THE DECAL IS CLEAN AND FREE OF ALL DIRT, GREASE, AND GRIME.

2. USING ANY **SPRAY-ON GLASS CLEANER,** THOROUGHLY WET DOWN THE AREA WHERE YOU INTEND TO PUT THE DECAL.

3. REMOVE THE **HEAVY WAXED BACKING SHEET** FROM THE DECAL BY POSITIONING IT FACE UP ON A FLAT SURFACE; GOING TO **ANY CORNER**; AND BENDING THIS CORNER UP SLIGHTLY TO SEPARATE THE DECAL AND THIN MASKING SHEET FROM THE **HEAVY WAXED BACKING SHEET.**

4. **SLOWLY** AND **CAREFULLY** PEEL THE HEAVY WAXED BACKING SHEET AWAY FROM THE DECAL AND MASKING SHEET.

5. PLACE THE DECAL ON THE GAME CABINET **OVER** THE **WET** GLASS CLEANER YOU JUST APPLIED. (THIS WILL ALLOW A **SMALL** AMOUNT OF FINAL POSITIONING TO BE DONE AFTER THE DECAL IS APPLIED TO THE GAME CABINET.)

6. SMOOTH THE DECAL.

7. ALLOW THE DECAL TO BECOME FIRMLY AFFIXED TO THE GAME **BEFORE** PROCEEDING TO THE NEXT STEP.

8. REMOVE THE **THIN MASKING SHEET** FROM THE DECAL AT THIS TIME BY MOISTENING IT WITH A WET CLOTH OR SPONGE. RUB WITH FINGER TIPS **(NOT NAILS)** FROM A CORNER EDGE TOWARD ITS CEN-TER. PEEL THE THIN MASKING SHEET BACK OVER ITSELF TO REMOVE IT. **DO NOT** PULL IT STRAIGHT AWAY FROM THE CABINET.

TRON TO TWO TIGERS CONVERSION

O P T I O N   S W I T C H   S E T T I N G S

//////////////// SWITCH NO. 1 - AT B 3 - LOCATED ON SOUND I/O P.C. BOARD ////////////////

DURING GAME PLAY:	SW#1	SW#2	SW#3 NOT USED	SW#4 NOT USED	SW#5 NOT USED	SW#6	SW#7 **NOT USED**	SW#8 NOT USED	SW#9 NOT USED	SW#10
** SINGLE FIRE RAPID FIRE	OFF ON						MUST REMAIN OFF			
** NO CREDIT DOG FIGHT 1 CREDIT DOG FIGHT		OFF ON								
** ONE COIN METER TWO COIN METERS						OFF ON				
** NORMAL OPERATION FREEZE VIDEO										OFF ON

//////////////// SWITCH NO. 3 - AT D 14 - LOCATED ON SOUND I/O PC. BOARD ////////////////

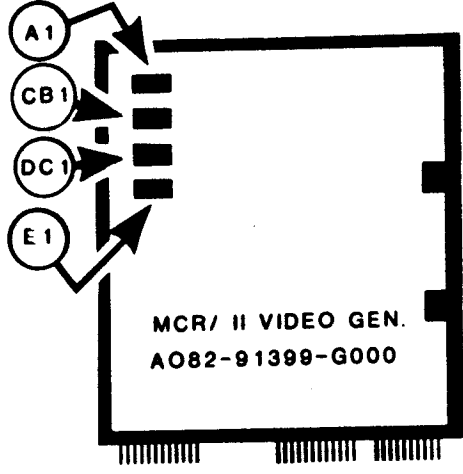|	SW#1	*SW#2	*SW#3	*SW#4
** NORMAL OPERATION SOUND I/O DIAGNOSTIC MODE	OFF ON			
** NORMAL OPERATION RAM/ROM TEST INDICATES TEST RESULTS VIA YELLOW L E D ON SOUND I/O BOARD: FAST FLASH = BAD ROM SLOW FLASH = BAD ROM		OFF ON		
** NORMAL OPERATION OSCILLATOR TEST			OFF ON	
** NORMAL OPERATION FILTER TEST				OFF ON

* NO EFFECT IF SW#1 OF SWITCH NO. 3 IS IN THE "OFF" POSITION
** FACTORY RECOMMENDED SETTINGS

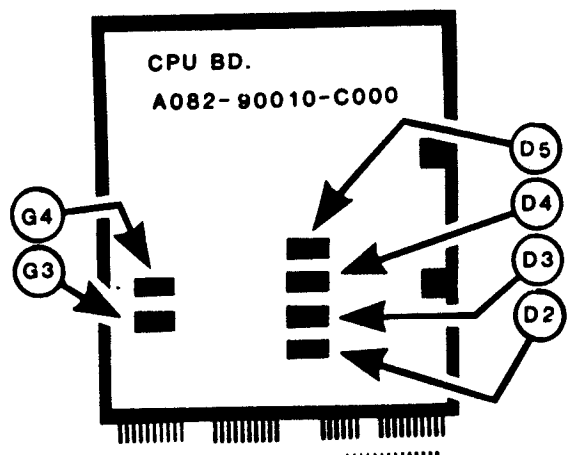PART NO. M051-00C67-A007

NOTE: TWO CREDITS IN DOG FIGHT OPTION REQUIRED TO WIN ONE FREE GAME.
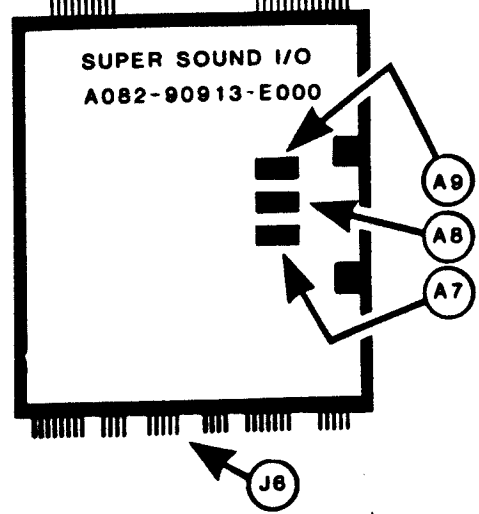ONLY ONE CREDIT PER GAME IS AWARDED.

MCR/ II VIDEO GEN.

A082-91399-G000

POSITION	EPROM	PART NO.
A1	FG.-3	C67A-22AXC-MXFD
CB1	" -2	C67A-22AXC-LXFD
DC1 ·	" -1	C67A-22AXC-JXFD
E1	" -0	C67A-22AXC-JXFD

CPU BD.

A082-90010-C000

POSITION	EPROM	PART NO.
D2	PROG.-0	C67A-22AXC-CXFD
D3	" -1	C67A-22AXC-DXFD
D4	" -2	C67A-22AXC-EXFD
D5	" -3	C67A-22AXC-FXFD
G3	BG. -0	C67A-22AXC-AXFD
G4	" -1	C67A-22AXC-BXFD

SUPER SOUND I/O

A082-90913-E000

POSITION	EPROM	PART NO.
A7	SND.-0	C67A-22AXC-AXCD
A8	" -1	C67A-22AXC-BXCD
A9	" -2	C67A-22AXC-CXCD