M A B
SYSTEMS
LI M I TED Bontoft Avenue, Hull, HU5 4HF. Tel: 01482 342299 Fax: 01482 449872

Crazy Blaze
Software Version 8v4

CONTENTS

Fitting Instructions

Identify the CPU card (it may have a black cover over it) and carefully lever out the existing PROM and remove the 'square security device' using the special extraction tool provided in the kit. Replace with the new devices, paying particular attention to the orientation. Refer to Fig 1.

N.B. The three game Proms are numbered 1,2 and 3 and must be inserted in the machines from left to right in order for the lamps on the Top Box to align correctly.

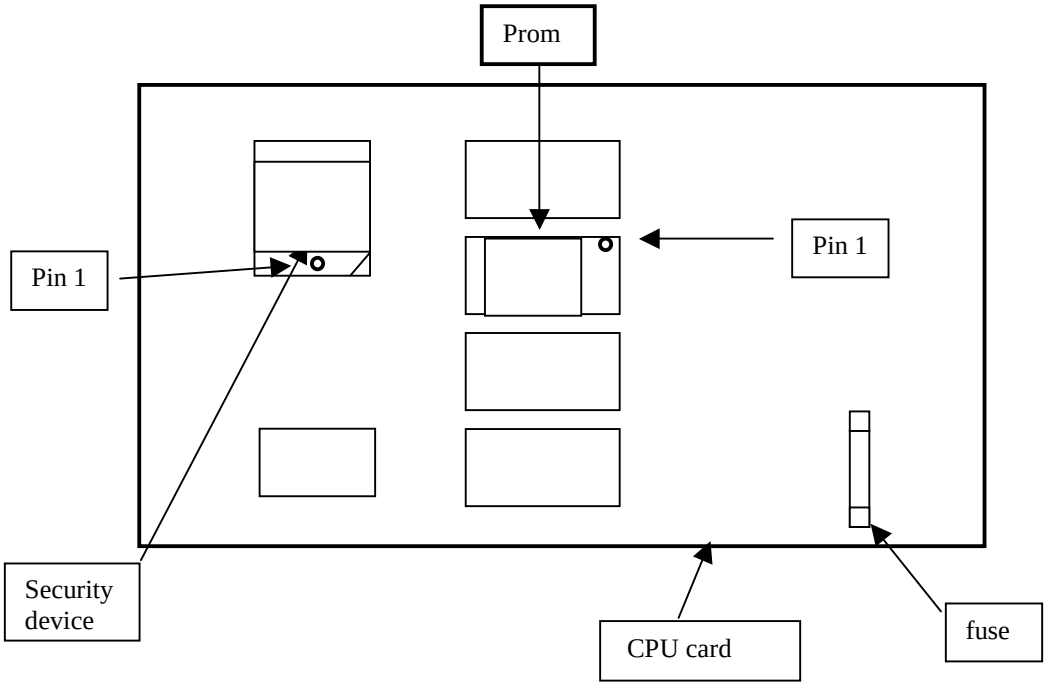


Fig.1 - Location of CPU components.

Setting up Mars Mechs for use with MAB software

If your machine has a £2 pound green or orange box fitted to the side of the coin acceptor, then connect the mech loom directly to the coin acceptor, the green or orange box is not required.

The latest releases of MAB software have been written to allow connection to the most commonly used mech configurations. These cover mechs which have been programmed to accept the £2 coin, as well as those that haven't. Also covered are mechs which have been programmed to accept promotional tokens.

Coin mechs currently used on all-cash machines will continue to work, providing the options switches, described in Software Setup, are correctly set. Machines accepting 20p tokens should continue to use existing software, as the new releases do not support token payouts.

Software Setup

The DIP switches on the main board are used to configure the software for the type of mech fitted. This is done using three switches (refer to the DIP Switch Settings sheet for the switch numbers)

The state of the switches depends on a few basic questions. Start with all three switches in the OFF position, then answer the following questions.

Does the mech accept the £2 coin?

If 'No', leave switch bank2 switch 2 OFF.

If 'Yes', enable the £2 coin by putting bank2 switch 2 into the ON position.

Does the mech accept a token?

If 'No', the setup is complete.

If 'Yes', answer the next question.

What is the value of the token?

If the token value is £1, put bank 2 switch 4 into the ON position. The setup is then complete.

If the token value is 50p, answer the next question.

Does the token replace the 50p coin?

If the token *does not* replace the 50p coin, put bank 2 switch 3 into the ON position.

If the token *does* replace the 50p coin, put bank switch 3 AND switch 4 into the ON position.

Test Procedures

- Set door switch to door open.
- Press test button to enter test mode.

Test Mode Navigation CANCEL = EXIT
COLLECT = NEXT TEST
START = DO TEST

Test 1 – Lamp Test CANCEL = EXIT

All bulbs are flashing except the two coinmech entry lamps which are permanently on.

Test 2 – Hopper Test CANCEL = EXIT
HOLD 1 = Hopper 1 clear/run
HOLD 2 = Hopper 2 clear/run

When hoppers empty the display shows 'LO'. Press the hoppers to see the 'LO' message go away.

Before running a hopper ensure it contains ten coins.

Press HOLD1 or HOLD2. The hopper should pay out ten coins then stop. Any overrun indicates an error.

Test 3 – Coin Test CANCEL = EXIT

As each coin is accepted the display will show the value of the coin (pound is P1, pound token is t1, 50p token is t.5).

Check that pounds go to the front hopper and other cash into the front cashbox, tokens into the Rear hopper.

Test 4 - Reel Set Up Procedure

1. Enter test mode 4, the reel set-up/test function.

2. When the LED display is showing 'Tabs' manually push the reels around to check that all the reels have a rest position where the tab is central within the opto sensor. It may help to remove the two thumb screws that hold the reel plate in position then turn the plate sideways for better vision.

   If any tabs are not able to rest centrally within the opto sensor adjust the position of the motor within its housing for those reels using the two screws either side of the motor. It is alright to temporarily remove a reel or two to gain access to other reels.

3. Now with all the tabs in the opto sensors press the CANCEL button to spin the reels to the first symbol, the LED display will show 'Line'. It may be necessary to re-align the symbols.

   If any reel has a symbol which is slightly off the true win-line, correct it using the win-line adjustment screw. This is the single screw on the pointer to the angle-scale.

4. Ensure all screws are tightened, replace the reel tray and thumb screws. Press CANCEL to move to the nudge and spin test mode.

- Ensure reels are central in window and securely screwed down.
- Ensure coinmech is fitted correctly and the reject lever operates.
- Check tidiness of loom routing around the electronics boards.
- Check for cracked micro-switches.
- Check fluorescent lamps are on.
- Attach a door lock cam where it is visible to the customer.
- Get all your cash and tokens out.

Test 5 –Switch Test CANCEL = EXIT

The display shows the current state of the door, cashbox, test and refill switches. Ensure they all work.

C = Cash Door
D = Front Door
R = Refill
T = Test Button

Test 6 – Individual Lamp Test CANCEL = EXIT
START = Next lamp.

This is the individual lamp test, the display shows the lamp that should be lit.

Test 7 – Set Volume HOLD 1 = Volume down
HOLD 3 = Volume up

Use this to set the required volume.

Test 8 – Meter Faults START = Select Meter
CANCEL = Exit
COLLECT = Clear Fault

Credit display shows 'ci' = Cash In
'co' = Cash Out
'ti' = Token In
'to' = Token Out

If meter has had a fault, bank shows 'FAIL'. Otherwise it shows 'GOOD'.

Test 9 – Set Percentage

CANCEL = Exit and forget changes
START = Exit and save changes
HOLD 1 = Reduce % payout by 1%
HOLD 3 = Increase % payout by 1%

Test 10 – Select Coin Mech Type

CANCEL = Exit and forget changes
START = Exit and save changes
HOLD 1 = Select Coin Mech type

Bank Display shows 'C Ac' (Coin Acceptor).
Credit display shows mech type, where 0=Mars, 1=Coin Controls.

Test 11 – Set Bank Limit

CANCEL = Exit and forget changes
START = Exit and save changes
HOLD 1 = Step back through options
HOLD 3 = Step forward through options

Bank Display shows 'bAnc' (Bank)
Credit display shows maximum bank value (0, £30 or £75)

Test 12 – Test Comms Link to Top Box

CANCEL = Exit
START = Toggle between PASS and FAIL counters

This test is used to verify correct operation of the comms link to the 'Top Box'. While in this test the machine continually sends a message to the top box and waits for a valid reply. If it receives a valid reply it increments the PASS count, if not it increments the FAIL count. Either count can be viewed by pressing the Start button.

If the link is operating correctly, the PASS counter should be steadily incrementing and the FAIL counter should remain at zero.

If the FAIL counter is steadily incrementing and the PASS counter remains at zero the link is totally inoperative (e.g. comms lead disconnected or Top Box not powered up).

If both counters are incrementing there may be a loose connection or some source of electrical interference causing the link to be unreliable.

General Points To Notice

Ensure that the loom which loops to the front door of the machine does not interfere with reels as the door closes.

When initially converting from an original game or updating from an earlier software it is required that the reel set-up procedure is followed to ensure proper reel operation.

After fitting the software and powering on the machine for the first time, the reels may continue to run indefinitely. If this happens hold the reels still until they 'time-out' then proceed to the set-up procedure.

Play Test

Restart the machine in door-open mode. Pressing COLLECT will give 20 credits. Play at least 80 games whilst looking for reel alignment problems.

Reel Problem

One frequent problem is reels coming to rest about 1/3rd of symbol above normal. This is due to the relative position of the opto slot and the motor poles and may be corrected by a minor adjustment. Remove the reel and locate the two screws which hold the motor in its housing. Slacken the screws and rotate the motor slightly anti-clockwise (as if to make the reel stop even earlier). The adjustment should be very slight. Tighten the screws, replace reel and re-test. If the reel now always stops above the win line then the adjustment was too much.

Problem With Led Display (Bank And Credit).

If the displays appear to be showing incorrect information try altering switches 7 and 8 of SW1 and then restarting the machine.

Comms Problems

At power up, and at regular intervals afterwards, the three base machines check with the Top Box to ensure that the communications link is operating correctly. If the link fails to respond at power up, or within any two minute period subsequently, the machine will 'freeze' and the message

CC??

will appear on the bank display. If this happens to all three base machines simultaneously the Top Box has probably been turned off or disconnected.

As soon as the cause of the problem has been rectified (e.g. Top Box plugged back in) the machines will carry on working from where they left off.

Refill Procedure For Crazy Blaze (Casino Style Cabinets)

The hoppers can be refilled and their levels checked or set by use of the refill key. If the cash box door and front door are both open, the contents of the hoppers may also be partially or totally dumped. The procedure is as follows:

Turn the refill key. The credit display will show 'rc' to indicate 'refill cash'.

If the machine is not operating as all cash, pressing the start button will change the credit display to 'rt' to indicate 'refill tokens'.

The bank display shows the number of coins currently expected to be in the hopper (if the front door is open) or the number of coins inserted during this refill (if the front door is closed).

Refill And Level Adjustment

While 'rc' is displayed, £1 coins inserted into the coin mech will be directed to the cash hopper, and will be metered on the refill meter if the cash box door is shut. The bank display will be updated accordingly. Coins may be inserted until the preset maximum level is reached. No further coins will then be accepted.

While 'rt' is displayed, operation is as above but only tokens will be accepted.

If the contents of the hopper is known, and is different to that displayed by the machine when the front door is open, the middle and right hold buttons may be used to adjust the level to match.

Hopper Dump

If the cash box door and front door are open while in refill mode, pressing the left hold button will count coins out of the selected hopper.

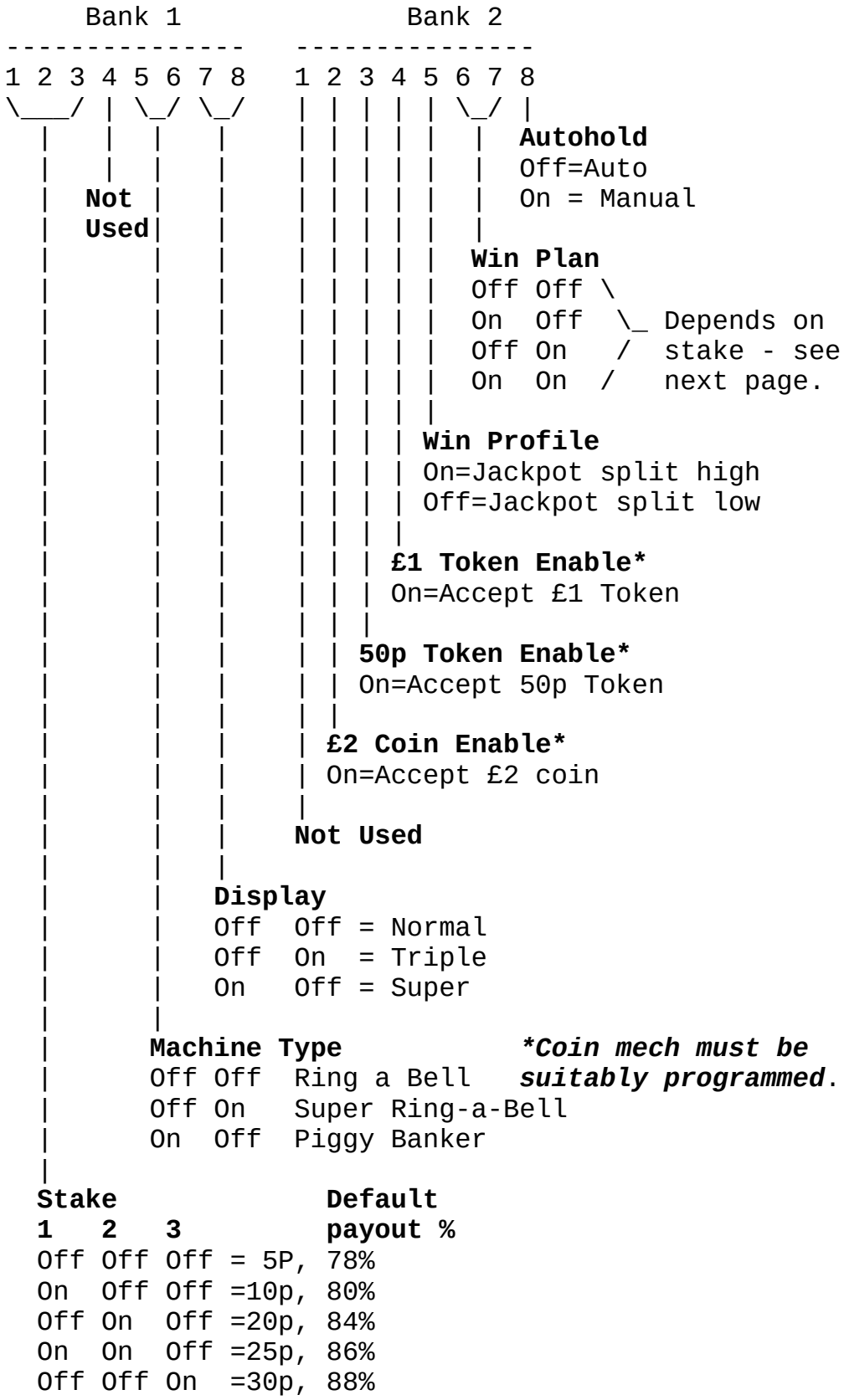
If the hopper is initially overweight (ie: the level switch is depressed), coins will be counted out until the level switch is released. The displayed level will automatically change to the preset maximum hopper level of £125.

If the hopper is initially overweight (ie: there are not enough coins to operate the level switch), coins will be counted out until the hopper is empty. This is detected when no coins are paid out for a number of seconds. When the hopper is totally empty, the level will be automatically changed to 0.

In each of the above cases, the dump may be aborted by pressing the cancel button.

NOTE: While the hopper is being dumped, any coins inserted will be ignored.

DIP Switch Settings for Crazy Blaze 8v4



Stake 1	2	3	Default payout %
Off	Off	Off = 5P,	78%
On	Off	Off =10p,	80%
Off	On	Off =20p,	84%
On	On	Off =25p,	86%
Off	Off	On =30p,	88%

Win Plans

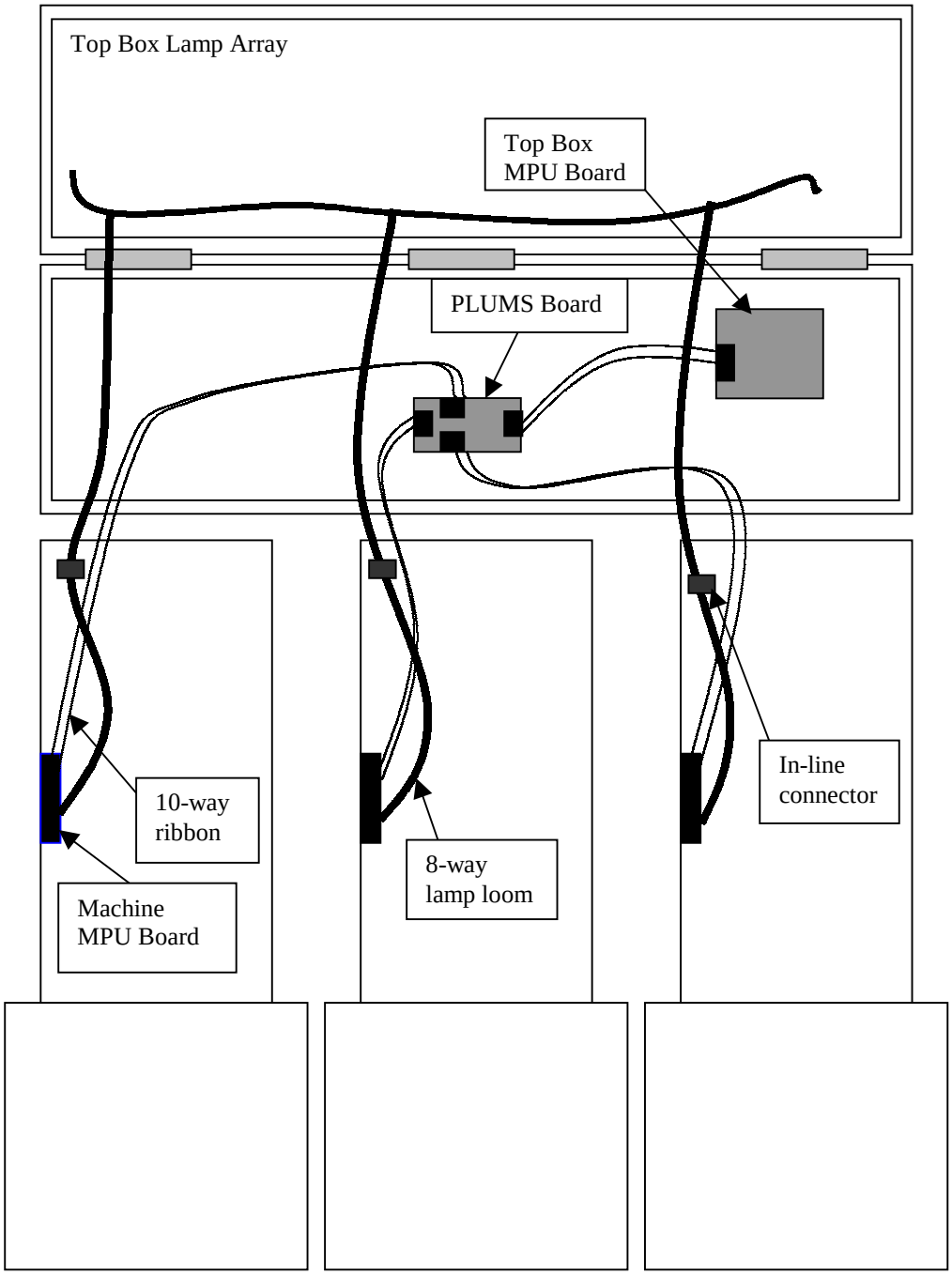
The win plan is set on Bank 2 switches 6 and 7. There is a choice of 4 plans for each possible stake.

The available plans are as follows:

Stake	Switch -> 6	7	
5p			
	Off	Off	= £1, £2, £3, £5
	On	Off	= £1, £2, £4, £8
	Off	On	= £1, £2, £5, £10
	On	On	= £1, £2, £5, £10
10p			
	Off	Off	= £1, £2, £3, £5
	On	Off	= £1, £2, £4, £8
	Off	On	= £1, £2, £5, £10
	On	On	= £1, £2, £5, £15
20p			
	Off	Off	= £1, £2, £3, £5
	On	Off	= £1, £2, £5, £10
	Off	On	= £1, £2, £5, £15
	On	On	= £1, £5, £10, £15
25p			
	Off	Off	= £1, £2, £3, £5
	On	Off	= £1, £2, £5, £10
	Off	On	= £1, £2, £5, £15
	On	On	= £1, £5, £10, £15
30p			
	Off	Off	= £1, £2, £3, £5
	On	Off	= £1, £2, £5, £10
	Off	On	= £1, £2, £5, £15
	On	On	= £1, £5, £10, £15

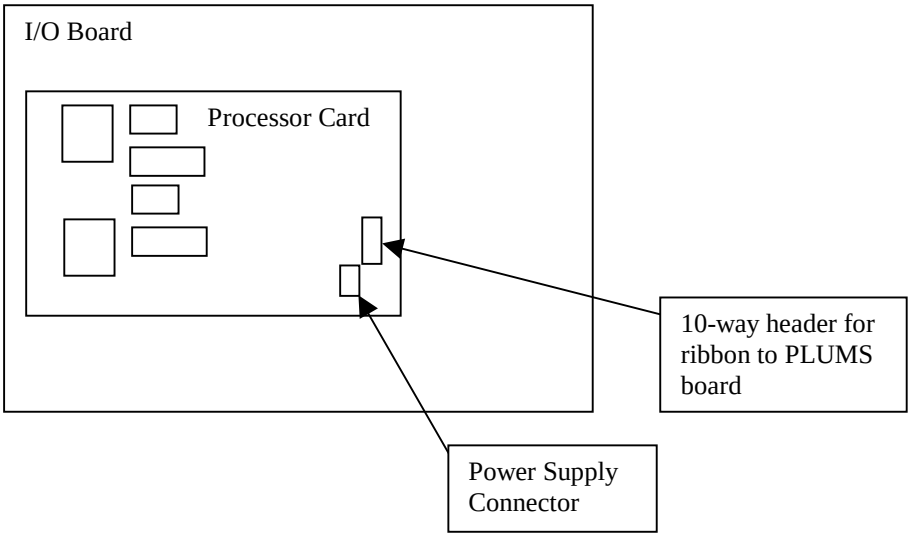
Top Box connection and setup

The top feature box is connected to each of the three base machines via a 10-way ribbon cable (comms link) and an 8-way lamp loom.



The PLUMS board (serial interface board located in the Top Box) has 4 connectors. Three of these are grouped towards one end of the board and the remaining one is located at the opposite end, as in the diagram above. When re-connecting this board, the three grouped connectors should be connected using the 10-way ribbon cables to the base machines and the other connector must be used to connect to the Top Box MPU board.

The ribbon cable to the Top Box MPU plugs into the 25-way D-type BACTA port. The three ribbons to the base machines plug into a 10-way header on the 'Piggy Back' processor card of the MPU (for location of this connector see diagram below).



After connecting the ribbon cables and linking the lamp loom for each machine, power up the three machines and the Top Box and use Test 11 (see Test Procedures above) to verify error-free communications, and Test 1 to check Lamps in the Prize panel area of the Top Box. The lamps for the 'Crazy Blaze' logo, firemen and flames should all be lit once the Top Box has finished resetting.

Dip Switches

The Dip switches on the Top Box MPU board are used only for setting sound volume.

The switches used are 2,3,4 and 5. Each time a change is made to the volume switches, a short sound will be played at the new volume. The volume may be set at any of 16 levels as indicated below

Switch No.	2	3	4	5	
	Off	Off	Off	Off	Minimum Volume
	On	Off	Off	Off	
	Off	On	Off	Off	
	On	On	Off	Off	
	Off	Off	On	Off	
	On	Off	On	Off	
	Off	On	On	Off	
	On	On	On	Off	
	Off	Off	Off	On	
	On	Off	Off	On	
	Off	On	Off	On	
	On	On	Off	On	
	Off	Off	On	On	
	On	Off	On	On	
	Off	On	On	On	
	On	On	On	On	Maximum Volume