THE CRANE OPERATORS MANUAL

Step 1: Unbox your crane and check for any visible shipping damage. if damage is found, make necessary repairs before placing on location!

Step 2: Install bridge correctly on track and place lights securely in place. Turn power on.

Step 3: Check operation of bill acceptor and coin mechs by running money through them and checking to see that the correct amount of credits is registering. Note; This is operator adjustable!

Step 4: While you have credits on the machine check operation of bridge. Make sure bridge moves all the way back, foward, and side to side. Let claw drop and return to starting position several times. At this time do not worry about claw tension, we will deal with that in the next step! For right now we want to check all moving parts, lights, bill accepter and coin mech. Make any necessary adjustments.

Step 5: Adjusting the claw tension is the most importatnt factor in running a crane. This will determine the amount of plush your machine will be dispensing, and the amount of profit you as the operator will see.

First, you must acquire an electric meter. You do not need expensive or elaborate equipment, a simple digital readout available at Radio Shack will be the easiest to read and use.
If you already own a regular model thats fine too!

Using a regular needle display meter, set the voltage at 15volts DC current. Open the service door, as you look at the small board to your left, you will notice two adjustable pods, a front pod and one right behind it. These two pods work in conjuction with one another and must be fine tuned as you would the carburater in a car.

To the right of the pods you will see a plastic connector (one way snap in) with wires sticking straight up. Looking front to back you will notice the first two wires are white.
In the small hole where the first white wire sits, put the RED lead from your electric meter. This might be a little tight, but it must be seated with the first white wire.

Next, in the 2nd hole right behind the first wire place the BLACK lead. Make sure both are securely in place!.

Now turn both pods completely off by turning them both counter clockwise till they stop.
With the crane coined up and ready start playing the crane as you would normally.
Let the claw drop, now on its return up and to the front is the only time you may do any adjusting of the pods!!.

Start with the rear pod and turn it to the right untill it registers 10 on the 15volt scale.

This may take a couple of plays to get it as close to being on 10 as possible.
Now with the crane still returning to home postion adjust the front pod another 2 incriments, so that you have a total read out of 12 on your scale. 10 on the rear pod and 2 more on the front!.

Note; Depending on location and the volume of business you are doing you may fluctuate the front pod setting to please your needs. Moving the front pod 1 more increment will let your'e players win a little more (a total of 13 on your'e scale).

If you follow the above steps, whether you are running 1 or 200 cranes, you will be working on a good payout percentage on all your cranes, about 25 to 33 percent depending which of the above settings you choose.

If you are using a direct digital readout meter don't worry about the 15 volt scale, just set your meter to DC volts and use the direct reading.

Step 6: Now that you have a perfectly tuned machine you are ready to fill it with plush and install it on location. Your first time in a location and the appearance of you're crane is important!. Mainly what we call the FLASH.

If your crane is totally empty, it will need about 2 regular size premixes to fill, this is a nice fill and look.

With your plush in the crane, toss it a couple of times like you would a salad. Now gently face the animals so that they are looking towards you, starting in the front working your way back, slant them in a slight incline with the highest point being the back wall of the crane.

There is no reason to pack or push the animals down since you have already adjusted the claw tension. This gives the crane a good looking appearance and more play appeal. Note; when ever you return to fill or retoss the plush you must repeat this process!. It's a little more work, but your dollar return will be your reward.

Step 7: You are now ready to make some money!. Always keep in mind the location where your crane is. The only reason now that you would have a problem is if your crane is being tipped over by the location customers. A word with the owner explaining to him that dumping out plush will cause a profit loss for the both of you may help.

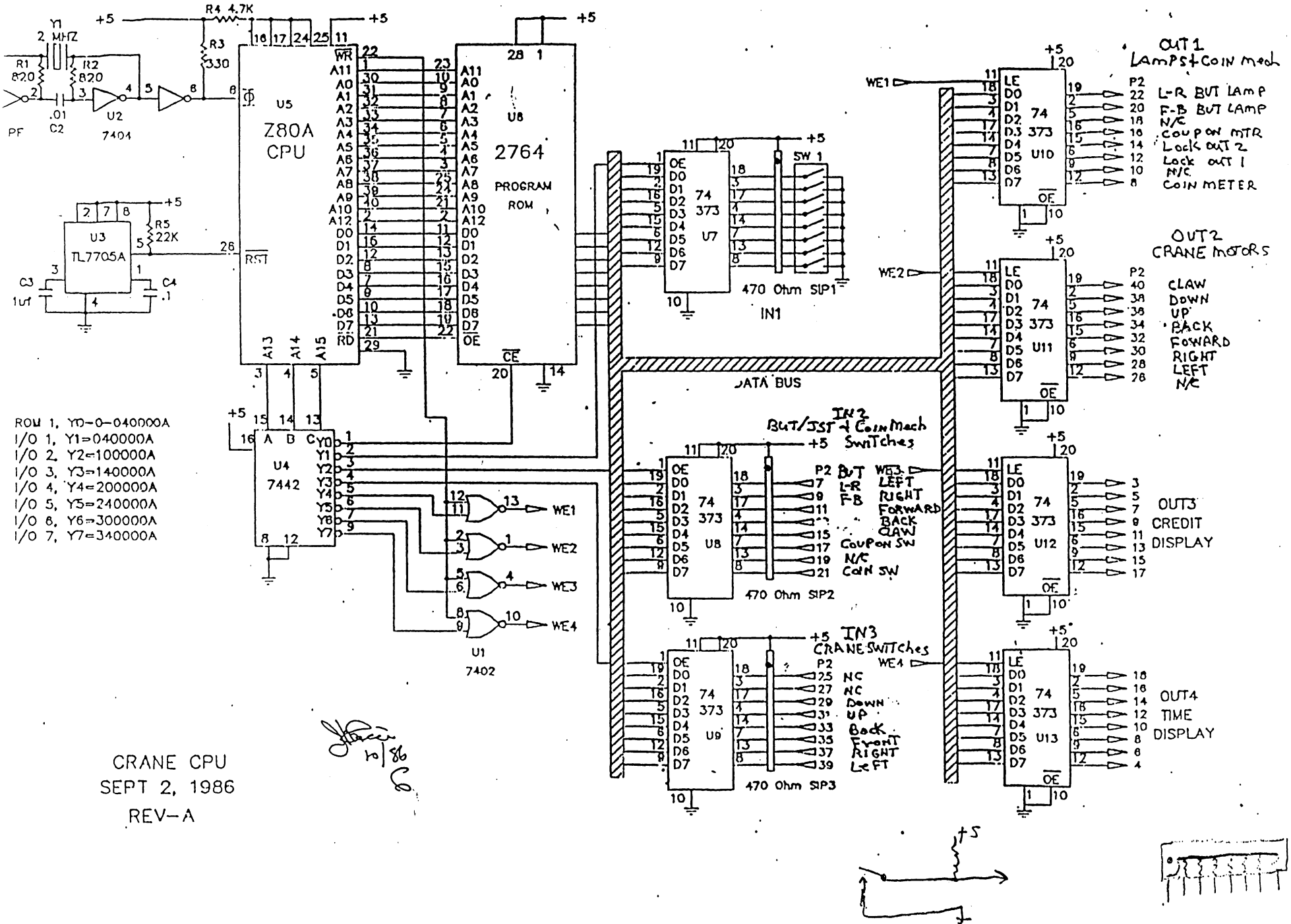
The other way to permantly solve the problem is to secure the crane to the wall using sturdy L Brackets. They are easily installed and prevent the crane from being tipped over.

Step 8: These are few things to always do and have on hand.
1) Check claw tension every 2-3 weeks.
2) Clean plexi and crane exterior every week.
3) Have a spare Bridge, Power Supply, Claw board, Relay Board, and Control Board to avoid having any down time on your crane.

You are now armed and ready to handle any problem that may arise in the future.

You have purchased the finest crane available on the market today, and we at Grayhound only wish you the best success in this venture. If there is any way we can help you, please call us at the factory, we will do our best to walk you through any problem that may arise.

Grayhound Electronics
1-800-222-0491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2 MHZ
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R2
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C2
PF
U2
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+5
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Z80A
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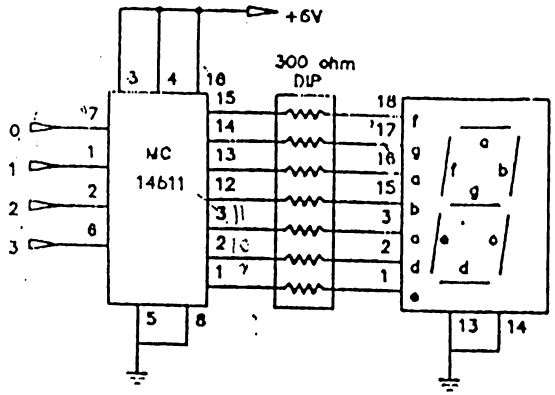
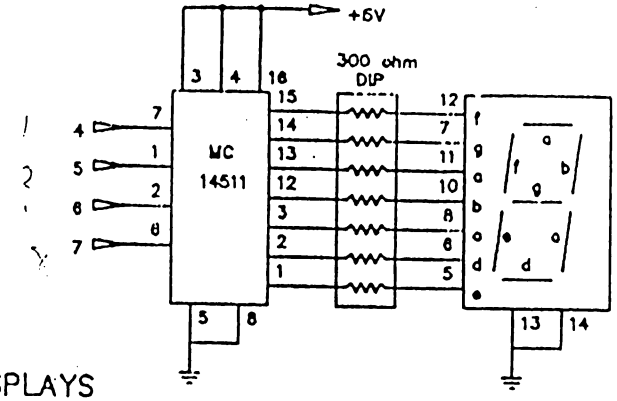
DATA BUS
U7
SW 1
470 Ohm SIP1
IN1
U8
IN2
BUT/JST + Coin Mech
Switches
P2 BUT
LEFT
L-R
RIGHT
F-B
FORWARD
BACK
CLAW
COUPON SW
N/C
COIN SW
470 Ohm SIP2
U9
IN3
CRANE SWITCHES
NC
NC
DOWN
UP
BACK
FRONT
RIGHT
LEFT
470 Ohm SIP3
U10
OUT1
LAMPS + COIN mech
L-R BUT LAMP
F-B BUT LAMP
N/C
COUPON MTR
LOCK OUT 2
LOCK OUT 1
N/C
COIN METER
U11
OUT2
CRANE MOTORS
CLAW
DOWN
UP
BACK
FOWARD
RIGHT
LEFT
N/C
U12
OUT3
CREDIT
DISPLAY
U13
OUT4
TIME
DISPLAY
CRANE CPU
SEPT 2, 1986
REV-A
10/86

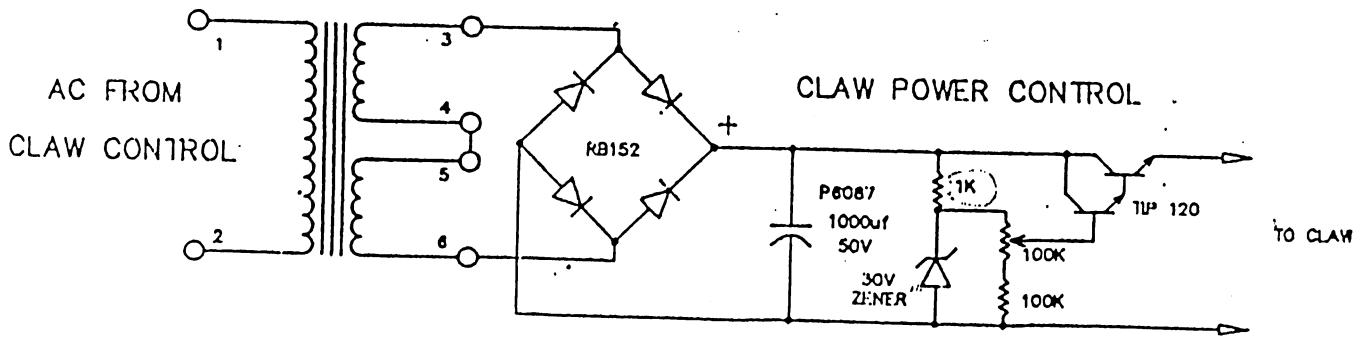
LEFT DIGIT DISPLAY



RIGHT DIGIT DISPLAY



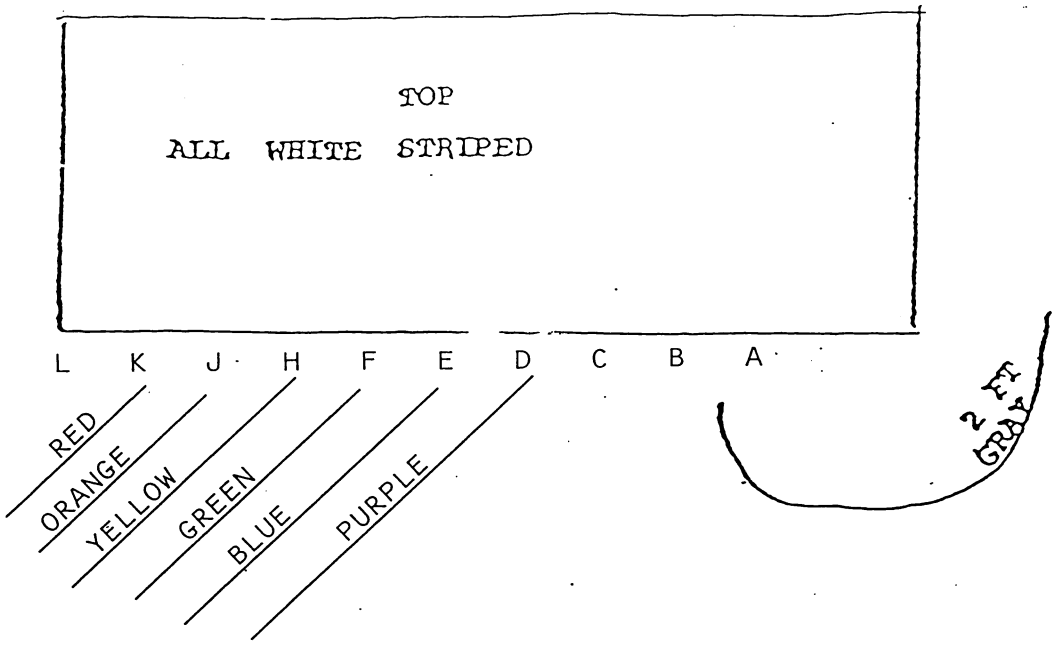
DISPLAYS



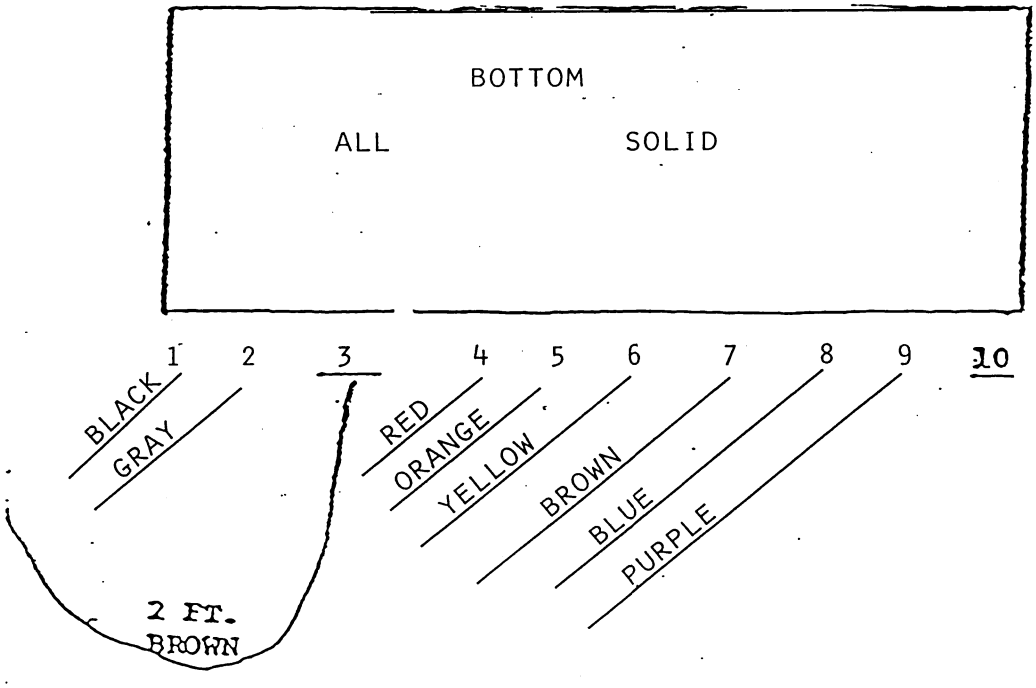
CRANE

DISPLAY AND CLAW CONTROL

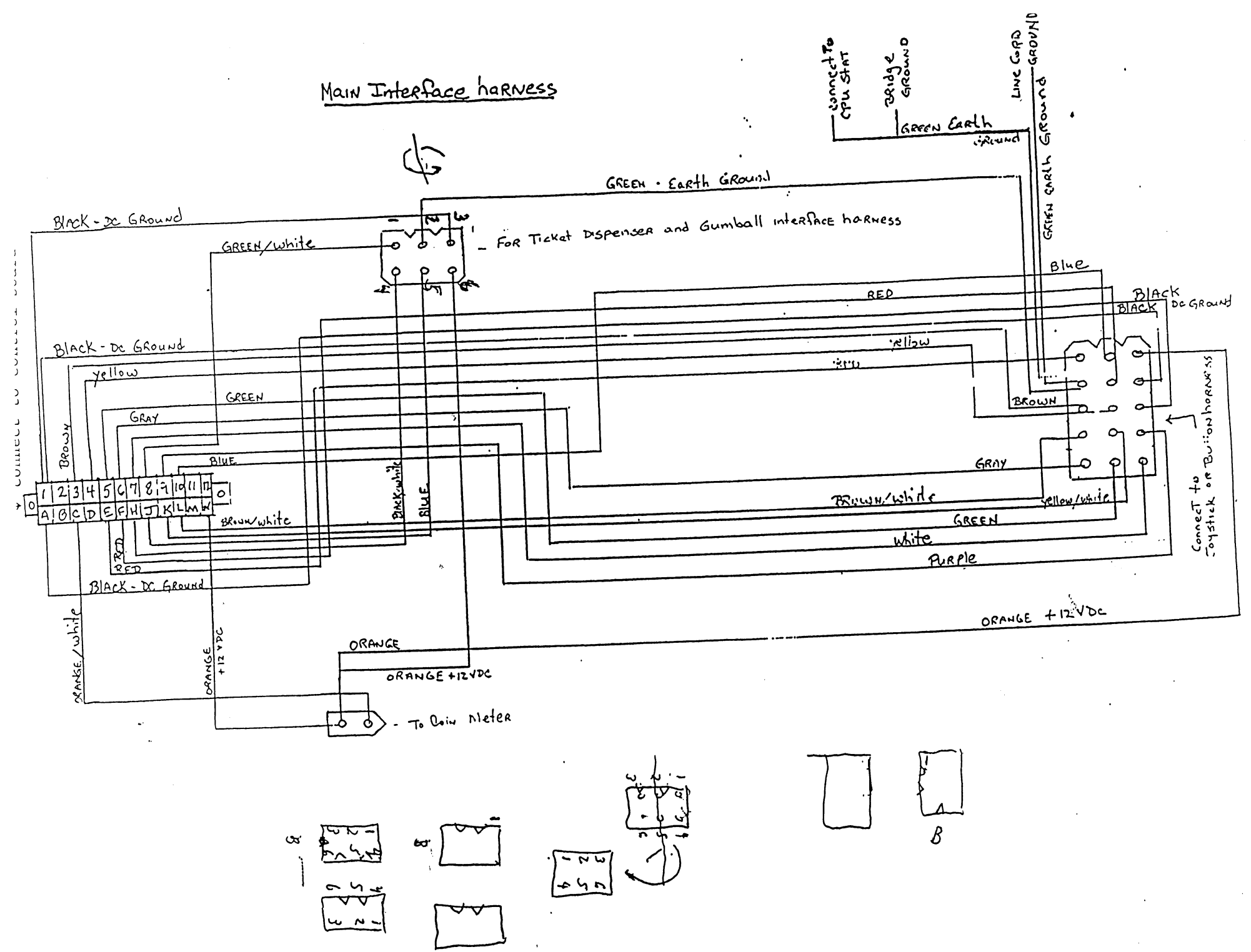
SEPT 2, 1986



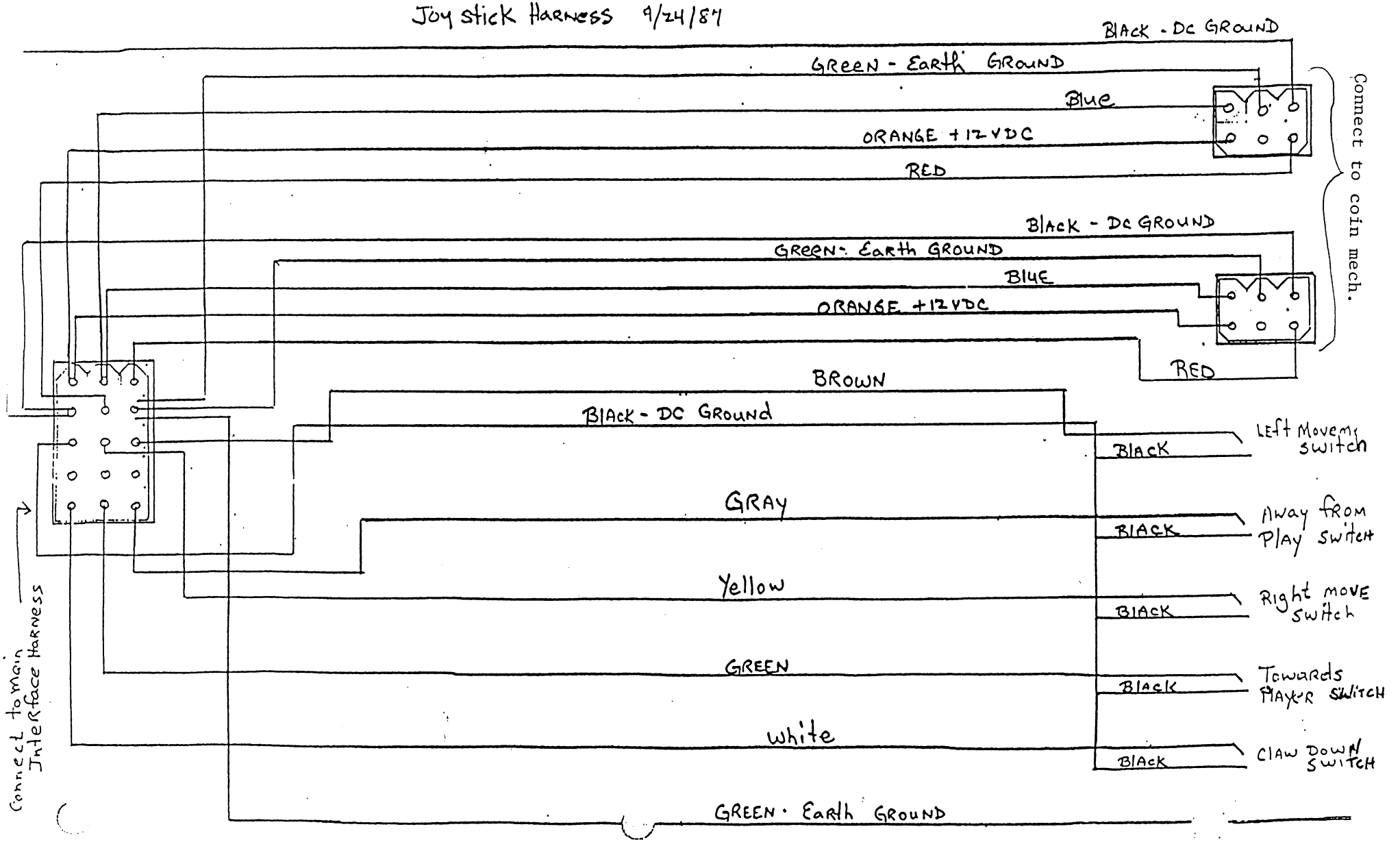
P-3 Connector



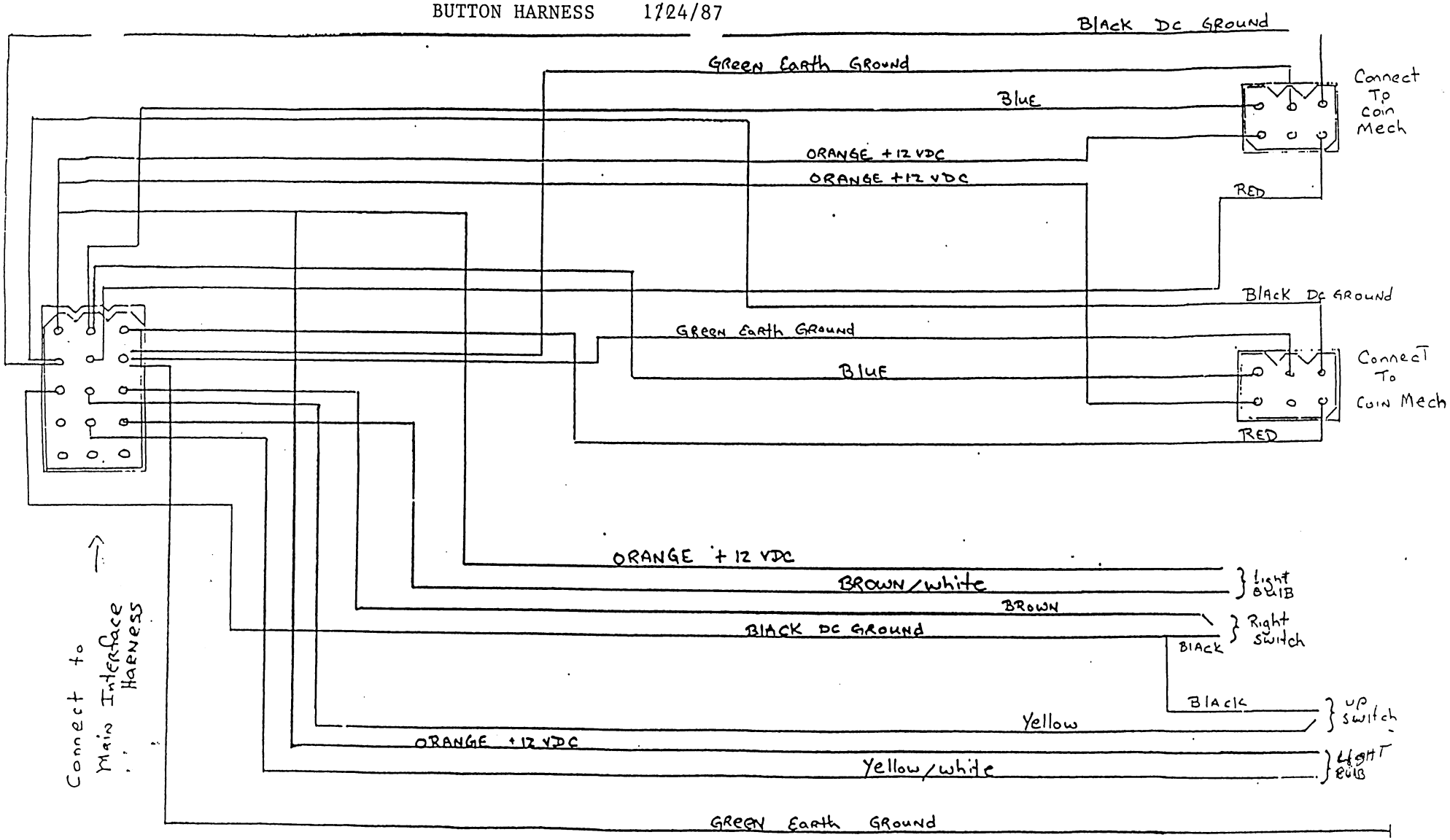
Main Interface harness



Joy stick Harness 9/24/87



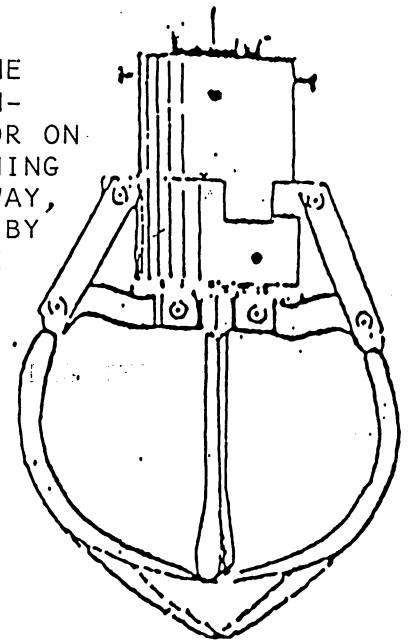
BUTTON HARNESS 1/24/87

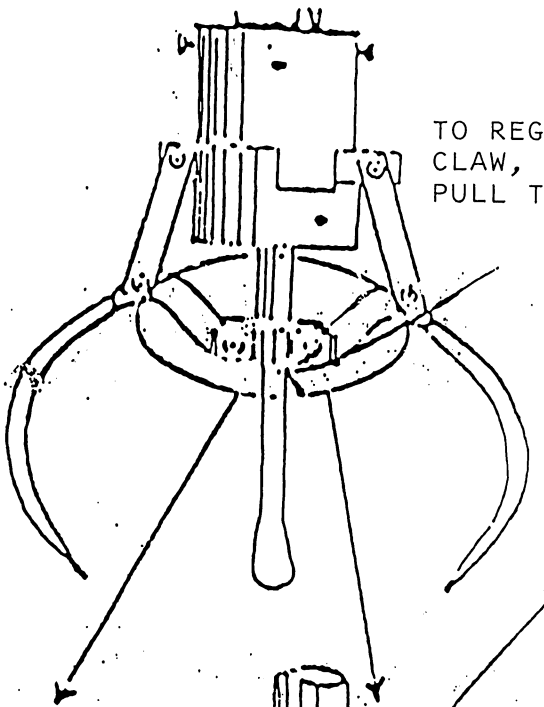


CLAW GRIP ADJUSTMENT

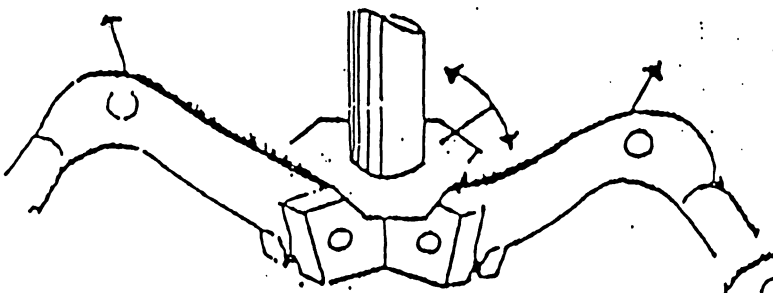
TO ADJUST THE STRENGTH OF THE CLAWS GRIP, LOCATE THE POTENTIOMETER OR VARIABLE RESISTOR ON THE MAIN P/C BOARD. BY TURNING THE KNOB CLOCKWISE ALL THE WAY, THIS IS THE STRONGEST GRIP; BY TURNING IT COUNTER-CLOCKWISE IT WILL WEAKEN THE GRIP.

YOU REGULATE THE NUMBER OF PRIZES THAT ARE WON BY ADJUSTING THE STRENGTH OF THE CLAW.

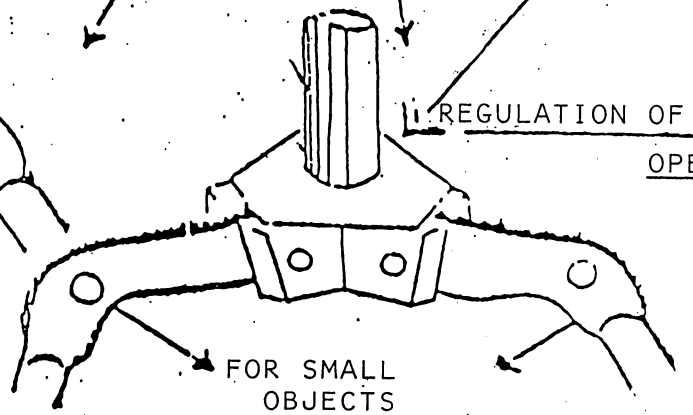




TO REGULATE OPENING OF CLAW, LOOSEN SCREW THEN PULL THE SIZE PLATE.



FOR LARGE OBJECTS



REGULATION OF CLAW OPENING

FOR SMALL OBJECTS

GRAYHOUND CRANE DIP SWITCH SETTINGS

DIP SWITCH SETTINGS

1	2	3	4	5	6	7	8

DIP SWITCH 1 & 2

ON	ON	----------2.00 PER PLAY----------
OFF	ON	----------1.00 PER PLAY----------
ON	OFF	---------- .50 PER PLAY----------
OFF	OFF	---------- .25 PER PLAY----------

DIP SWITCH 3 & 4

ON	ON	----------60 SECONDS PER PLAY
OFF	ON	----------45 SECONDS PER PLAY
ON	OFF	----------30 SECONDS PER PLAY
OFF	OFF	----------15 SECONDS PER PLAY

DIP SWITCH 5

OFF - BUTTONS CONTROL

ON - JOYSTICK CONTROL

DIP SWITCH 6 ON (FOR TICKET DISP.)

DIP SWITCH 7 NOT USED OFF DISABLE

DIP SWITCH 8

OFF - NORMAL PLAY

ON - SELF TEST

CRANE CPU BOARD

INTER-CONNECTION TO CONTROL BOARD

		12V	1	2	12V	
		5V	3	4	5V	
STICK-BUTTON		GROUND	5	6	GROUND	
L-R BUT	P1-3	IN2-0	7	8	OUT1-7	TO U1-5 U1-12 TO P1-C, COIN METER
F-B BUT	P1-4	IN2-1	9	10	OUT1-6	TO U1-6 U1-11 TO P1-D, PLUSE METER
FORWARD	P1-5	IN2-2	11	12	OUT1-5	TO U1-7 U1-12 TO P1-E, LOCKOUT 1
BACK	P1-6	IN2-3	13	14	OUT1-4	TO U2-1 U2-16 TO P1-F, LOCKOUT 2
CLAW	P1-7	IN2-4	15	16	OUT1-3	TO U2-2 U2-15 TO P1-H, COUPON MOTOR
COUPON SW.	P1-8	IN2-5	17	18	OUT1-2	TO U2-3 U2-14 TO P1-J
	P1-9	IN2-6	19	20	OUT1-1	TO U2-4 U2-13 TO P1-I, F-B LIGHT
COIN SW.	P1-10	IN2-7	21	22	OUT1-0	TO U2-5 U2-12 TO P1-L, L-R LIGHT
		GROUND	23	24	GROUND	
	P1-11	IN3-0	25	26	OUT2-7	TO U2-3 U2-10 TO P1-M
	P1-12	IN3-1	27	28	OUT2-6	RELAY #7 P3-9 LEFT
DN-SW	P3-K	IN3-2	29	30	OUT2-5	RELAY #6 P3-8 RIGHT
UP-SW	P3-J	IN3-3	31	32	OUT2-4	RELAY #5 P3-7 FORWARD
BK-SW	P3-H	IN3-4	33	34	OUT2-3	RELAY #4 P3-6 BACK
FW-SW	P3-F	IN3-5	35	36	OUT2-2	RELAY #3 P3-5 UP
RT-SW	P3-E	IN3-6	37	38	OUT2-1	RELAY #2 P3-4 DOWN
LF-SW	P3-D	IN3-7	39	40	OUT2-0	RELAY #1 P3-3 CLAW

INTER-CONNECTION TO DISPLAY BOARD

	5V	1	2	5V	
	OUT3-0	3	4	OUT4-7	
	OUT3-1	5	6	OUT4-6	
	OUT3-2	7	8	OUT4-5	
TIME	OUT3-3	9	10	OUT4-4	CREDIT
DISPLAY	OUT3-4	11	12	OUT4-3	DISPLAY
	OUT3-5	13	14	OUT4-2	
	OUT3-6	15	16	OUT4-1	
	OUT3-7	17	18	OUT4-0	
	GROUND	19	20	GROUND	