



1841 Friendship Drive • El Cajon, California 92020
(714) 562-7000

SERVICE BULLETIN

Parts

Attn: Service Technicians
Re: Blowing of Circuit Breakers

A common failure of the current amplifier, especially in the earlier monitors, is blowing of circuit breakers CB1 and CB2 accompanied by burning of the 47ohm resistors around the power transistor molex. These transistors are mounted to the heat sinks which are attached to the metal side panels of the monitor.

If this problem should occur, check for cold solder joints around the molex pins. Check the power transistors Q110 and Q111 (vertical) and Q210 and Q211 (horizontal) with an ohmeter or transistor tester to verify that the power transistors are operational. The best way to accomplish this is by disconnecting the molex plug and checking directly on the pins. The row of pins with the lone male pin always indicates the 2N5878 drivers Q110 and Q210. The row of all female pins indicates the 2N5876 power drives Q111 and Q211. Check the drivers on the display board Q108 and Q109 (vertical) and Q208 and Q209 (horizontal) with an ohmeter or in-circuit transistor tester. Upgrade the 47ohm resistors from $\frac{1}{4}$ watt to $\frac{1}{2}$ watt if not so equipped.

IMPORTANT

Never operate the game with these power transistors unplugged or the same resistors will be overdriven and eventually burn.

If you have any further problems please feel free to contact us at our toll free number; (800) 854-2666.

Good luck,

A handwritten signature in cursive script that reads 'Ron Cole'.

Ron Cole
Field Service Manager



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Attn: Service Technicians
Re: No Audio Sound

If one of Cinematronic's games has no audio, the first thing to check for would be an open speaker coil. If the speaker is good check 2N6292 and 2N6107 located on the audio board with an ohmeter or transistor tester. If one or both of these transistors test bad, replace defective components and also the TL081 (operational amplifier) which feeds them. Check for an open wiper on audio board volume control. Also verify the logic board is fully operational. The LS259 (audio enable) located at F-2 on the logic board would be a prime suspect.

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Lots of luck,

Ron Cole

Ron Cole
Field Service Manager



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SERVICE BULLETIN

Part

Attn: Service Technicians

Re: No Brightness Control

Should the problem ever arise in a Cinematronic's monitor where the intensity cannot be controlled, check the intensity potentiometer (R11) for an open wiper, and internal short, or change of value due to heat dissipation in the cabinet. When checking the R11 for its proper value with your ohmmeter it should read between 9.5K ohms and 10.5K ohms end to end. Check for cold solder connections to R11.

On earlier monitors check for an open 10mf capacitor (C17) on the display board. On the later model monitors check the P.T.K. or Keltron high voltage supply, whichever one your monitor may be equipped with as this capacitor is now incorporated into the circuitry in this unit.

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Good luck,

A handwritten signature in cursive script that reads "Ron Cole".

Ron Cole
Field Service Manager



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SERVICE BULLETIN

Attn: Service Technicians
Re: Coin Counter Inoperative

If the coin counter on one of Cinematronic's machines becomes inoperative, check transistor Q1 (2N6292) on logic board with an Ohmeter or transistor checker. This transistor is the coin counter driver.

Disconnect coin counter molex and measure DC voltage on red wire. Meter should read +25 volts DC.

Check molex connector J1 to logic board for +5 volts and proper ground.

Check for proper electrical connection at pin 3 of J1.

If you have any further problems please feel free to contact us at our toll free number; (800) 854-2666.

Lots of luck,

A handwritten signature in cursive script that reads "Ron Cole".

Ron Cole
Field Service Manager