

## LED/Connector pin identification table

Connector	PIN	LABEL	LED	Connector	PIN	LABEL	LED		
3.5mm & 6.35mm Mono/Stereo Jacks	tip	hot	1	2 & 4 pole Speakon	1+		8		
	ring	cold	2		1-		screen		
	sleeve	ground	screen		2+		6		
3,4,5 pole XLR Male & Female	1	ground	1	8 pole Speakon	2-		7		
	2	hot	2		1+		2		
	3	cold	3		1-		3		
	4		4		2+		4		
	5		5		2-		5		
	shell	ground	screen		3+		6		
	5 pole 180° DIN	1			1	RJ45/EtherCon	3-		7
		2	ground		2		4+		8
3			3	4-			screen		
4			4	1			1		
5			5	2			2		
6			6	3			3		
7			7	4			4		
8			8	5			5		
4.4mm Single /Twin Bantams	shell		screen	6		6			
	tip 1	hot	1	7		7			
	ring 1	cold	2	8		8			
	sleeve 1	ground	3	screen		screen			
	tip 2	hot	7	USB A & B	1		1		
ring 2	cold	8	2			2			
sleeve 2	ground	screen	3			3			
RCA Phono & BNC	inner	inner	1		4		4		
	screen	screen	screen		screen		screen		

## Cable CheckMate Operations Manual

### Introduction

The Cable CheckMate Cable Tester is a versatile unit that allows the user to either identify the connections within a variety of Professional Audio, Lighting & digital Network cables, Or carry out rapid comparison tests having stored known good cable details.

Cables fitted with any of the following connectors may be checked:

- 3, 4 & 5 Pole XLR Male or Female
- 6.35mm Jack, stereo or mono
- Single or Twin 4.4mm Bantam, stereo or mono
- 3.5mm Jack, stereo or mono
- 2,4 & 8 Pole Speakon (™)
- USB A & B
- RJ45 EtherCon (™)
- DIN 180° 3, 5 & 8 Pole
- RCA Phono
- BNC

The Cable CheckMate Cable Tester allows you to visually test for the following conditions:

- Continuity
- Short Circuits (end to end & between unconnected pins)
- Open Circuits (end to end & between unconnected pins)
- Crossed Wires

The Cable CheckMate Cable Tester has four modes of operation:

- Manual, double ended - both ends of the cable under test plugged into Cable CheckMate
- Automatic, double ended - both ends of the cable under test plugged into Cable CheckMate using the MEMORY feature.
- Manual, single ended - one end of the cable under test plugged into Cable CheckMate the other into Cable CheckMate, testing can be from either end.
- Automatic, single ended - one end of the cable under test plugged into Cable CheckMate the other into Cable CheckMate, testing can be from either end using the MEMORY feature.

Please read the following instructions carefully before using the Cable CheckMate Cable Tester.

### Warning:

**The Cables to be tested must be fully disconnected from any other equipment or electrical source. Failure to do so could result in electrical shock and permanent damage to the Cable CheckMate Cable Tester, for which the manufacturer and suppliers can accept no liability.**

## Getting started

The Cable CheckMate Cable Tester will require fitting of a 9 volt battery ( not supplied). Using a screwdriver to undo the screw holding the small panel on the right of the tester to gain access to the battery compartment. Fit the 9 volt PP3 battery observing correct polarity.

### Batteries / Power Down:

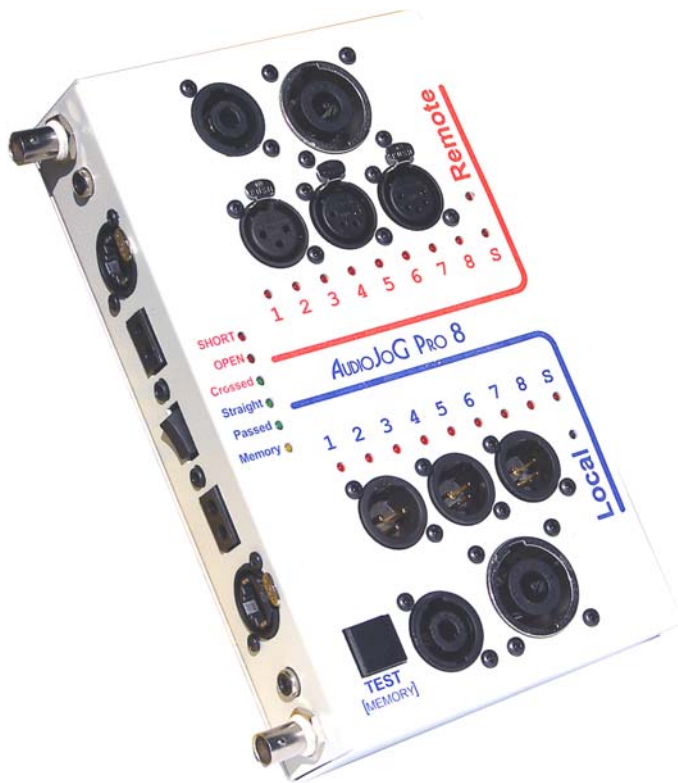
Under normal use the batteries should give at least a years use. However, to preserve battery life Cable CheckMate has a Power Down feature. After 15 minutes of inactivity Cable CheckMate will indicate that Power Down is about to occur by flashing the PASSED,FAILED & MEMORY LED's. Press the TEST button to continue, or switch OFF and then ON again to reset Cable CheckMate.

## Test Procedure

There are 2 rows of 9 Light Emitting Diodes (LED's) corresponding to each of the 8 possible connector pins and one for the screen (or ground) connection. Checking the status of connections is made using the TEST button. Until you become familiar with the connectors pin wiring you may wish to refer to the handy LED/Connector Identification table on the back page.

## METHOD 1 - Manual Double Ended

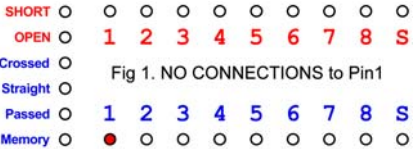
This is the preferred method for testing a cable that is different to the previously tested one and has both ends available for plugging into the Cable CheckMate.



**METHOD 1 - Manual Double Ended (Continued)**

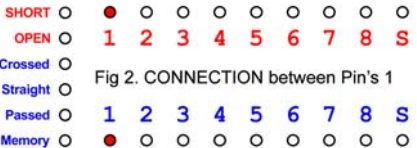
1. Plug one end of the cable to be tested into an appropriate socket using the 'Local' half of the tester.
2. Plug the other end of the cable into an appropriate connector using the 'Remote' half of the tester.
3. Switch ON.  
After a brief random display, ALL the LED's should turn ON for a couple of seconds and then turn OFF. If this is not the case then please check the power and mains connections, otherwise return the Cable CheckMate for repair.

4. To start the test press and release the TEST button. On the lower row of LED's the No1 LED will turn ON,



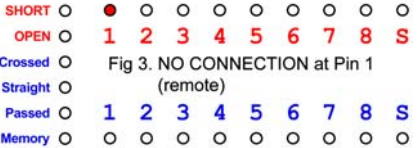
A single LED ON indicates that there are no connections to that pin (Fig1).

Two or more LED's ON (either row) indicate the connection from PIN 1 of the connector plugged into the local half to the remote half of the tester (Fig2).



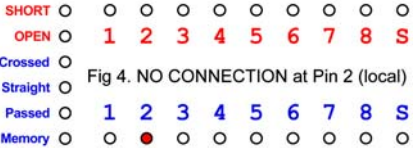
5. Press and release the TEST button again, the current LED's will go out.

If there were no connections in previous step then the upper LED No1 will turn ON (Fig3).



Or if there were connections in the previous step then the local No2 LED will turn ON (Fig4).

As before if there are any other LED's ON (either row) then they indicate the connection from the PIN 2 of the connector plugged into the local half of the tester.



**DECLARATION OF CONFORMITY**

**Manufacturers Name:** CableJoG Ltd.  
**Address:** 18 Browmere Drive, Croft, Warrington. WA3 7HT.

**Declare that;**



**Product:** AudioJoG Pro 8

**conforms to the following Product Specification:**

- BS EN 61000-6-3 for Generated Emissions
- BS EN 61000-6-1 for Immunity to Radiated Electromagnetic Fields
- Immunity to Fast Transient Bursts - Signal Lines
- Immunity to Conducted Field - Signal Lines
- Immunity to Electrostatic Discharge

The product herewith complies with the requirement of the EMC Directive 89/336/EC.

RoHS+WEEE



## METHOD 1 - Manual Double Ended (Continued)

Repeat step 5 until the local or both SCREEN LED turn ON (Fig5).

This is the end point for the visual test procedure, Cable CheckMate can not decide for you whether the results are correct or not.

SHORT	○	○	○	○	○	○	○	○	○	
OPEN	○	1	2	3	4	5	6	7	8	S
Crossed	○	Fig 5. TEST COMPLETE								
Straight	○	ready for MEMORY								
Passed	○	1	2	3	4	5	6	7	8	S
Memory	○	○	○	○	○	○	○	○	○	●

If all 8 signal pins are connected similarly, one to one, two to two etc then the green Straight LED will light.

SHORT	○	○	○	○	○	○	○	○	○	
OPEN	○	1	2	3	4	5	6	7	8	S
Crossed	○	Fig 6. TEST COMPLETE found								
Straight	●	Digital STRAIGHT cable								
Passed	○	1	2	3	4	5	6	7	8	S
Memory	○	○	○	○	○	○	○	○	○	●

If all 8 signal pins are connected in the digital network crossover standard then the green Crossed LED will light.

SHORT	○	○	○	○	○	○	○	○	○	
OPEN	○	1	2	3	4	5	6	7	8	S
Crossed	●	Fig 7. TEST COMPLETE found								
Straight	○	Digital CROSSOVER cable								
Passed	○	1	2	3	4	5	6	7	8	S
Memory	○	○	○	○	○	○	○	○	○	●

Then either:-

Press and release the TEST button to clear the display and take you back to step 4. Or see next chapter for how to automatically test cables against details held in memory.

## METHOD 4 - Automatic Single Ended (Continued)

a) A short was found, between wires 2 and 4 (Fig20).

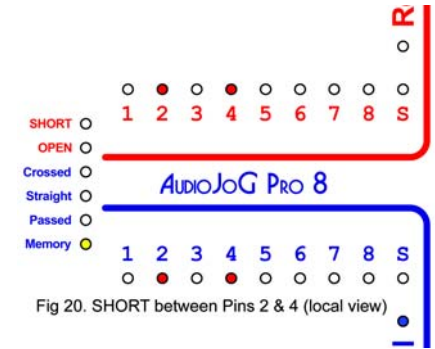


Fig 20. SHORT between Pins 2 & 4 (local view)

8. Press the TEST button to proceed, if there are more failures the test will stop at each and everyone of them, finally only the FAILED and MEMORY LED's will be ON. To test another cable repeat steps 3 & 4. To clear the MEMORY option either, switch OFF and then ON again or, press and hold the test button until the MEMORY LED goes OFF.

## METHOD 4 - Automatic Single Ended

Like the previous method this uses two Cable CheckMate cable testers. As with the process of going from Manual to Automatic Double ended testing, the start of the Automatic testing is the completion of the Manual test ending on the 'local' screen LED.

1. Once again at the 'local' screen LED on position press and hold until the MEMORY LED lights (Fig17).

2. After a few seconds (if there are unconnected pins then this will increase the test time) the display should show the Pass (green) and MEMORY (Yellow) LED's. If the Fail LED is on then there is probably an intermittent connection in the cable.

3. Plug in the cable to be tested using the same connector(s) and locations as before.

4. Press and release the TEST button. If all is well the Pass LED will turn ON, remove the cable. To test another cable repeat steps 3 & 4.

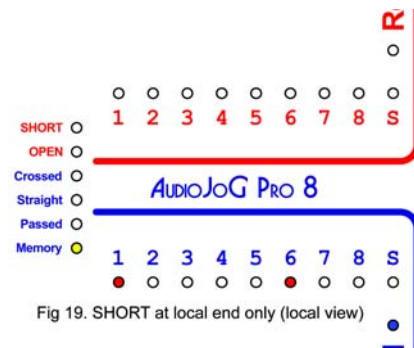
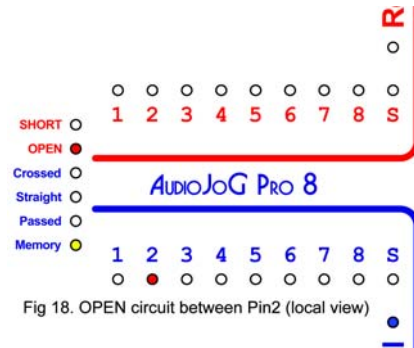
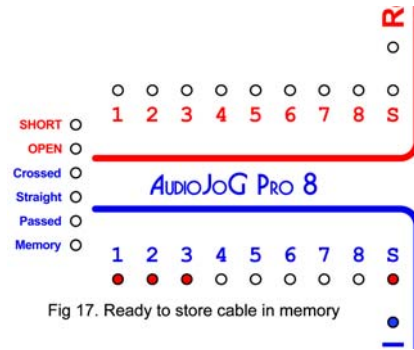
5. To clear the MEMORY either, switch OFF and then ON again or, press and hold the test button until the MEMORY LED goes OFF.

6. If the OPEN LED turns ON, then the Cable CheckMate has found a missing connection between the cable details in memory and the current cable. The numbered and screen LED's will stop at the error stage (Fig18).

7. If during the test a SHORT has been detected the test program will return to it and flash the bad connection until the cable is unplugged after which it will show the SHORT red LED.

Examples of SHORT failures follow:-

a) A short was found, at the local connector, where no connection existed before (Fig19).



## METHOD 2 - Automatic Double Ended

This method uses the Cable CheckMate's internal MEMORY to test against a cables details held in memory. If the cable checked matches, either a digital straight through, or a digital cross over the the corresponding green Straight/Crossed LED will light.

1. Follow the Method 1 instructions until the test completed stage with either both or just the local screen LED's on.

2. Press and hold the Test button until the MEMORY (yellow) LED comes on.

Release the Test button will cause the tester to run through all the connections and store them in MEMORY.

After a few seconds the display should show the Pass (green) and MEMORY (Yellow) LED's. If the Fail LED is on then there is probably an intermittent connection in the cable.

3. Plug in the cable to be tested using the same connector(s) and locations as before.

4. Press and release the TEST button. If all is well the Passed LED will turn ON, remove the cable. To test another cable repeat steps 3 & 4.

5. To clear the MEMORY either, switch OFF and then ON again or, press and hold the test button until the MEMORY LED goes OFF.

6. If the SHORT LED turns ON, then the Cable CheckMate has found a difference between the cable details in memory and the current cable. The LED's will stop at the error stage. Examples of failures follow:-

a) A short was found, at the local end within the connector, where no connection existed before (Fig10.).

b) An open connection was found, usually indicated by a single LED (Fig11.).

