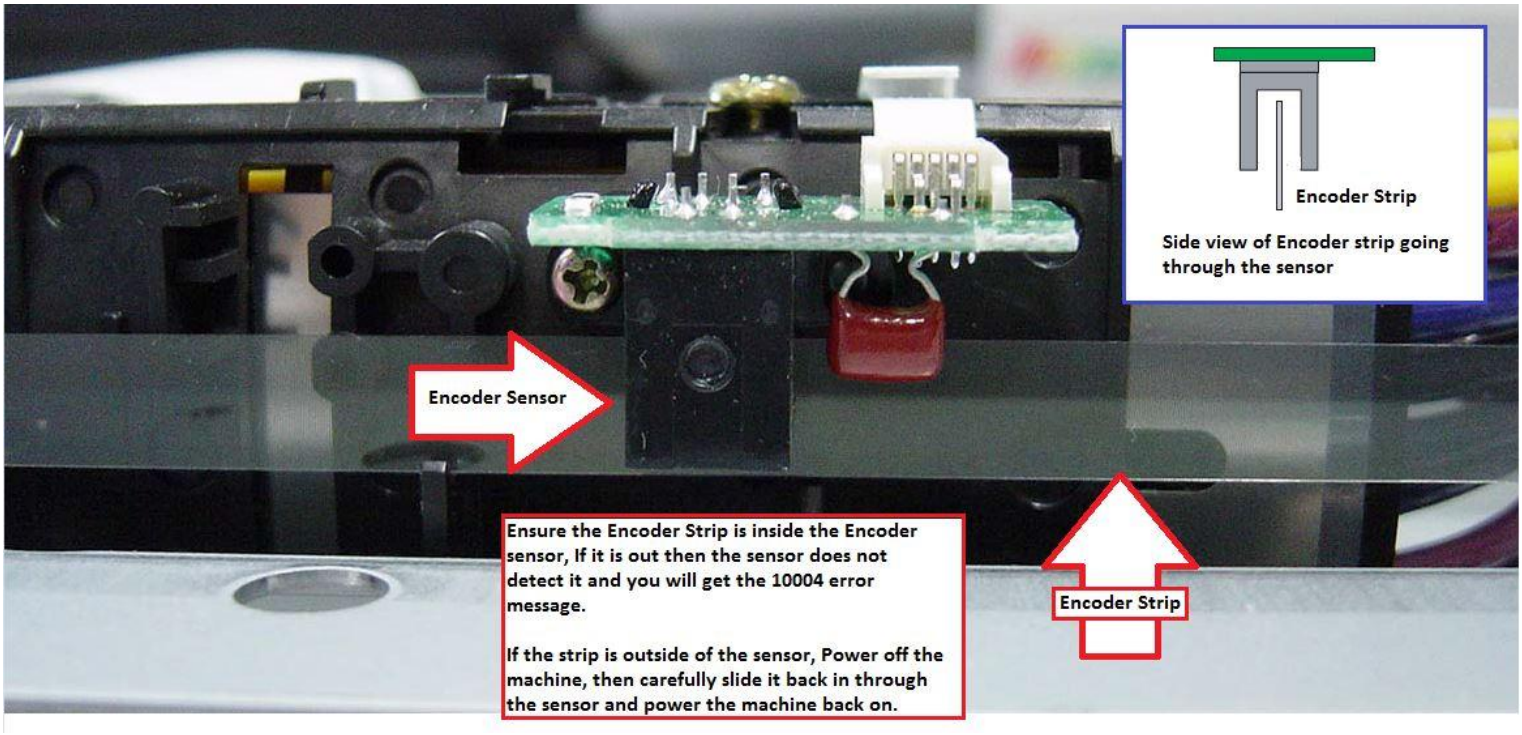
DTG Viper Error 00010004

The Error Code 10004 means that for some reason the CR Encoder strip cannot be read correctly by the Carriage Encoder sensor. Things that can cause this are:

1) Dirty or scratched encoder strip or encoder strip is not seated in the sensors slot.
2) Loose CR Belt Tension
3) No power from CR Encoder Sensor FFC Cable
4) FFC 000 incorrectly set or damaged.
5) Faulty Sub Board.

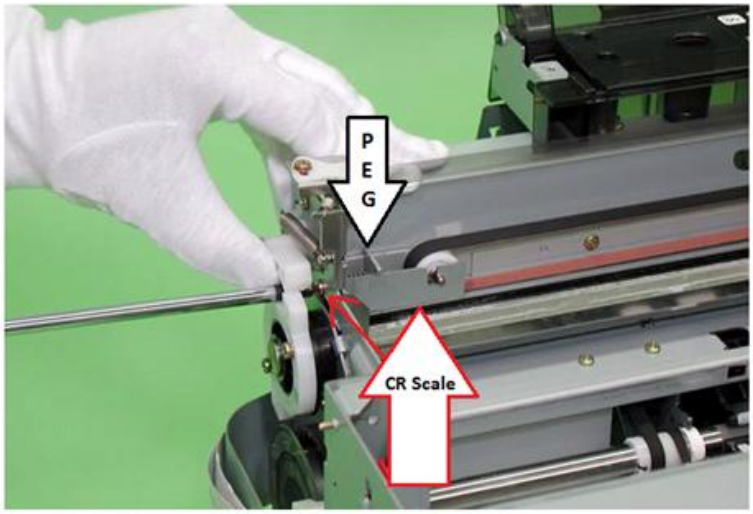
Dirty or scratched encoder strip or encoder strip is not seated in the sensors slot:

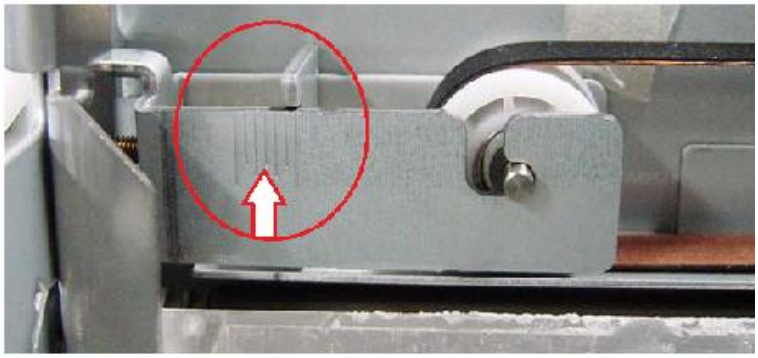
Power off the printer and manipulate the encoder strip so it is in the slot of the sensor then power back on to see if it is being read. Also get a close look at the encoder strip and if there is any debris on it, clean it carefully with some Isopropyl alcohol and power on and see if the error clears.



Loose CR Belt Tension.

On the right side of the printer (Emergency stop button side) there is a CR Belt tension scale, Make sure this Peg is set to the middle bar of the scale.

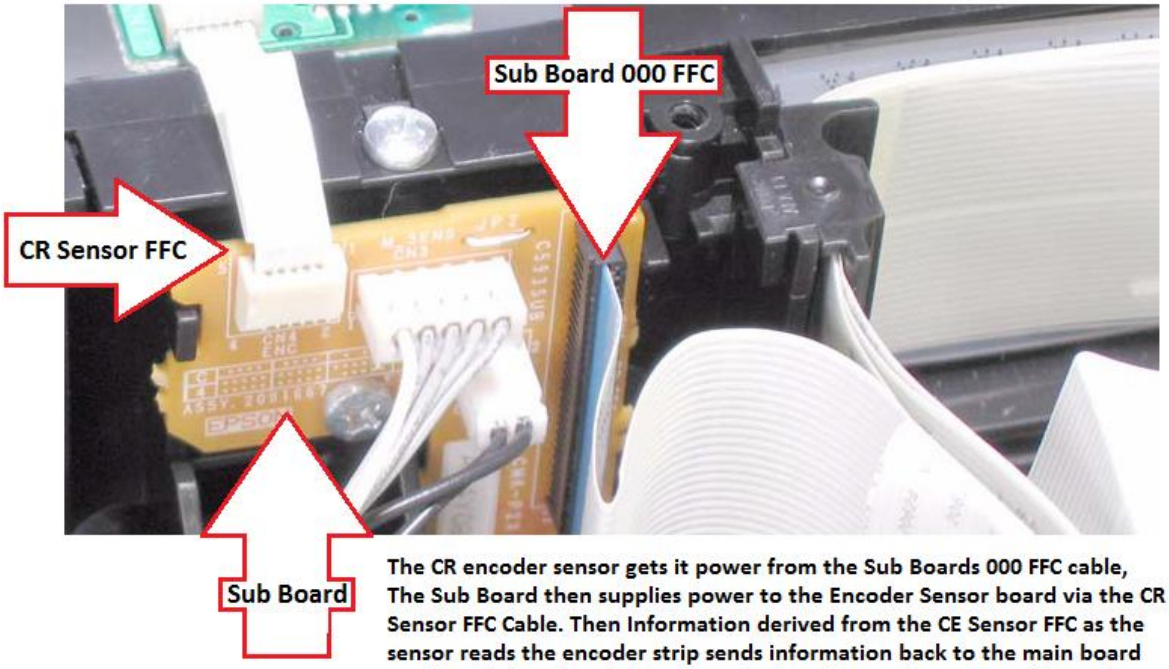




Adjust the Belt tension so the Peg is in the middle of the scale

No power from CR Encoder Sensor FFC Cable

The Encoder strip is read from the CR Sensor, and if the CR sensor does not have any electric power from the Sub board then this will also cause the 00010004 Error message. Check the narrow FFC Cable that there is no overspray of ink on it and that it is not damaged at all. Also the Sub Boards 000 FFC cable shown in the image below usually needs to be disconnected during Damper replacement or Print Head replacement. So if you did perform any of these functions, you may want to check this connection.

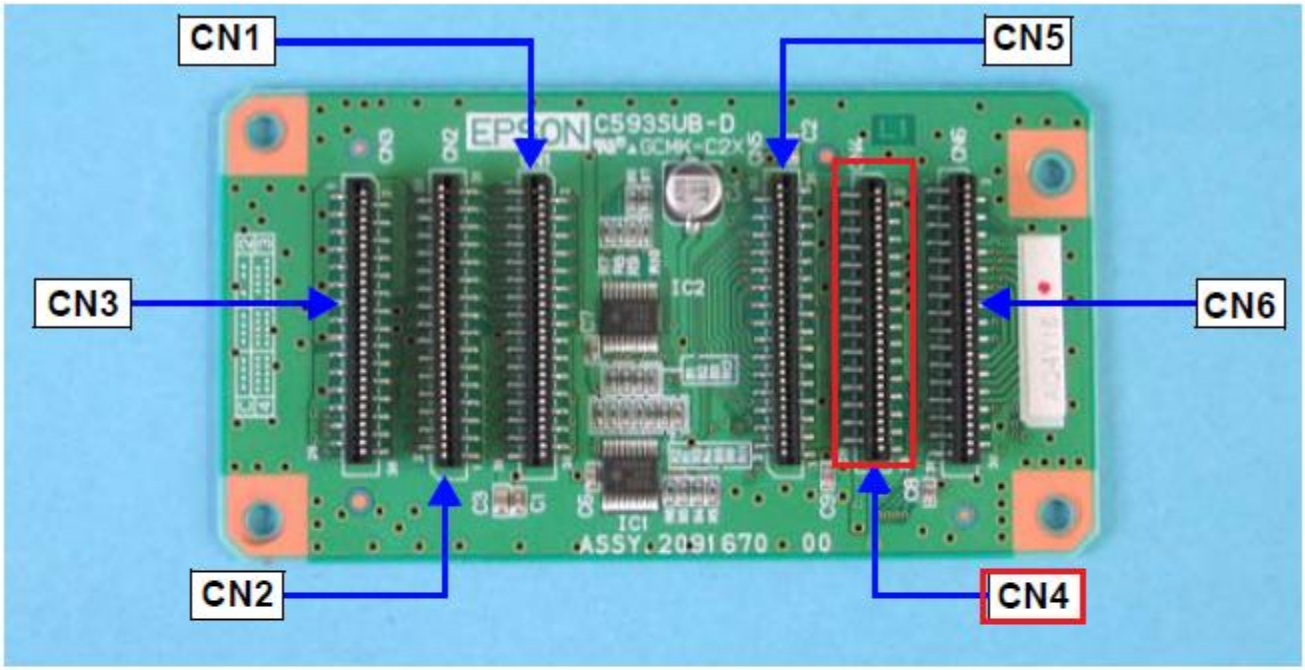


The CR encoder sensor gets it power from the Sub Boards 000 FFC cable, The Sub Board then supplies power to the Encoder Sensor board via the CR Sensor FFC Cable. Then Information derived from the CE Sensor FFC as the sensor reads the encoder strip sends information back to the main board via the sub board and then through the Sub Boards 000 FFC cable to the main board.

If your fingers touched the Metal Tabs on the leading edge of the 000 FFC cable (this FFC is labeled 000) then some oil from your fingers or sweat can have transferred to those metal tabs and so no power or signaling from the small narrow FFC cable can be transmitted to the main board for monitoring. So with power off and unplugged, you should carefully disconnect this 000 FFC cable and clean the metal tabs with some 70% Isopropyl alcohol and then carefully dry with paper towel. Also inspect the metal tabs to see if any were bent on the initial connection back into the Sub Board.

Sub D Board connections:

If you have just replaced the ribbon cables to the print head, then the connection CN4 on the SUB D board which carries the signal from the CR Encoder sensors FFC and Sub Board FFC cable to the main board may not be inserted correctly or if the metal tabs on the edge of the ribbon cables were touched or if any of the metal tabs were accidentally bent during initial replacement, then this too will interrupt the communication from the CR Encoder Sensor to the main board. If so disconnect and clean the metal tabs gently with 70% Isopropyl alcohol and fix any bent metal tabs.



SUB-D Board Connector Positions

Connection Order	Connector No.	Color/ Mark	Number of Pins	Connection Socket
1	CN1	-	31	C593 MAIN Board (CN7)
2	CN2	-	31	C593 MAIN Board (CN8)
3	CN3	-	30	C593 MAIN Board (CN9)
4	CN4	-	30	C593 SUB Board (CN1)
5	CN5	-	31	Print Head Board (CN1)
6	CN6	-	31	Print Head Board (CN2)

Signal transferred to Main board CN1 to CN7 on Main Board

Signal from Sub Board through 000 Cable CN4

Check Connection On Main Board

Communication goes from the Encoder Sensor via the Small FFC to the Sub Board then carried to the Sub D board via the 000 FFC cable, then from the Sub D to the Main board CN7. If the lower Head Cables were replaced, then you will want to check that CN7 is secured without damage to the FFC cables metal tabs, and if you accidentally touched the metal tabs during installation of the FFC Cable then you will want to clean them with 70% Isopropyl alcohol.