



ELECTRICAL CABLE CLUE...



## KINKS - NO! CURVES - SI!

Any time you come up against a short in your electrical harnesses it might pay to trace back over the wiring for a kinked lead.

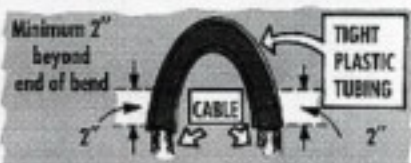
Forcing a cable into a tight bend pinches the metallic braid cover against the wiring insulation inside. The right installation is to keep a smooth, round bend each time you route that cable in a new direction.



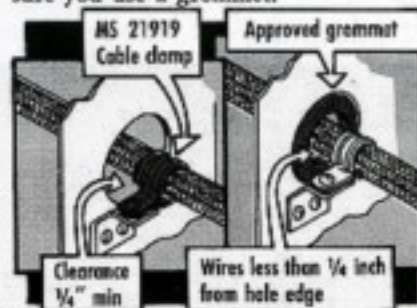
Depending on each cable's diameter, the minimum radius should be 10 times the braid's outside diameter.

If you're backed against the wall, coaxial cable can be brought in as tight as 6 times the OD, if really necessary. And non-coaxial cable may be bent to an extreme minimum of 3 times the OD where no other choice is possible.

At terminal strips it's OK to bend non-coaxial cable as tight as 3 times OD and, where necessary, single cable can be bent beyond the minimum radius if you wrap it in tight plastic tubing for a length of at least two inches past the bend on both sides.



Also try to keep a 0.25-in minimum clearance between harness branches and all nearby fixed components, especially those with sharp edges or other wires routed alongside 'em. And if a cable has to be routed closer than 0.25 inch from the edge of a bulkhead hole, be sure you use a grommet.



Following these rules should lengthen cable life by preventing excessive bend stresses and chafing. That's why they were included in Section XI of TM 11-530 (Dec 59), which is the Army's guide on "Installation Practices for Aircraft Electric and Electronic Wiring." See if you can pick up a copy.