

## Site-Built Custom Cabling Requirements

In the event that it is required to build custom cables on site during an installation, the following specifications must be followed to ensure compliance with the Cambridge Sound Management equipment and other provided cabling.

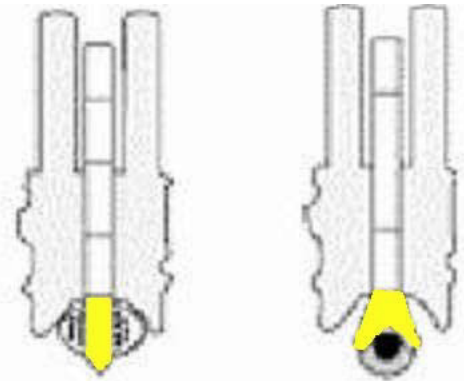
Any quality solid conductor 24 AWG CAT cable is acceptable, provided it meets local code requirements and:

- 1) Meets requirements for plenum installation (plenum-rated) if installed in a return air plenum
  - Shielding is not required: standard UTP cable (Unshielded Twisted Pair) is satisfactory
  - Snagless boots are not required
- 2) Has bent\* 3-tyne (prong) contacts straddling each conductor in RJ-45 connectors. Aligned 2-tyne contacts intended for use with stranded conductors are not acceptable under any circumstances. Failure to follow this requirement will result in intermittent contact and inconsistent system operation.
- 3) Once fabricated with RJ-45 connector, is field-tested before installation for continuity, shorts and 1:1 (straight through) connection using a standard network CAT cable tester.

\*There are two different types of RJ-45 connectors. The “bent 3-tyne” connector is intended for use with solid core CAT cable. The bent 3-tyne contact has the tines offset from each other to straddle the conductor. USE THE BENT 3-TYNE CONNECTOR FOR ALL CAMBRIDGE SOUND MANAGEMENT INSTALLATIONS.

The “Aligned tyne” connector is intended for use with stranded CAT cable. Errors occur when incorrect cable/connector combinations are used. The diagram to the right shows the end on a view of a single contact in a modular connector.

Bent 3-tyne connectors are available at Home Depot and most CAT cable suppliers.



INCORRECT  
RJ-45  
connector  
with aligned  
tyne

CORRECT  
RJ-45  
connector  
with bent  
tyne