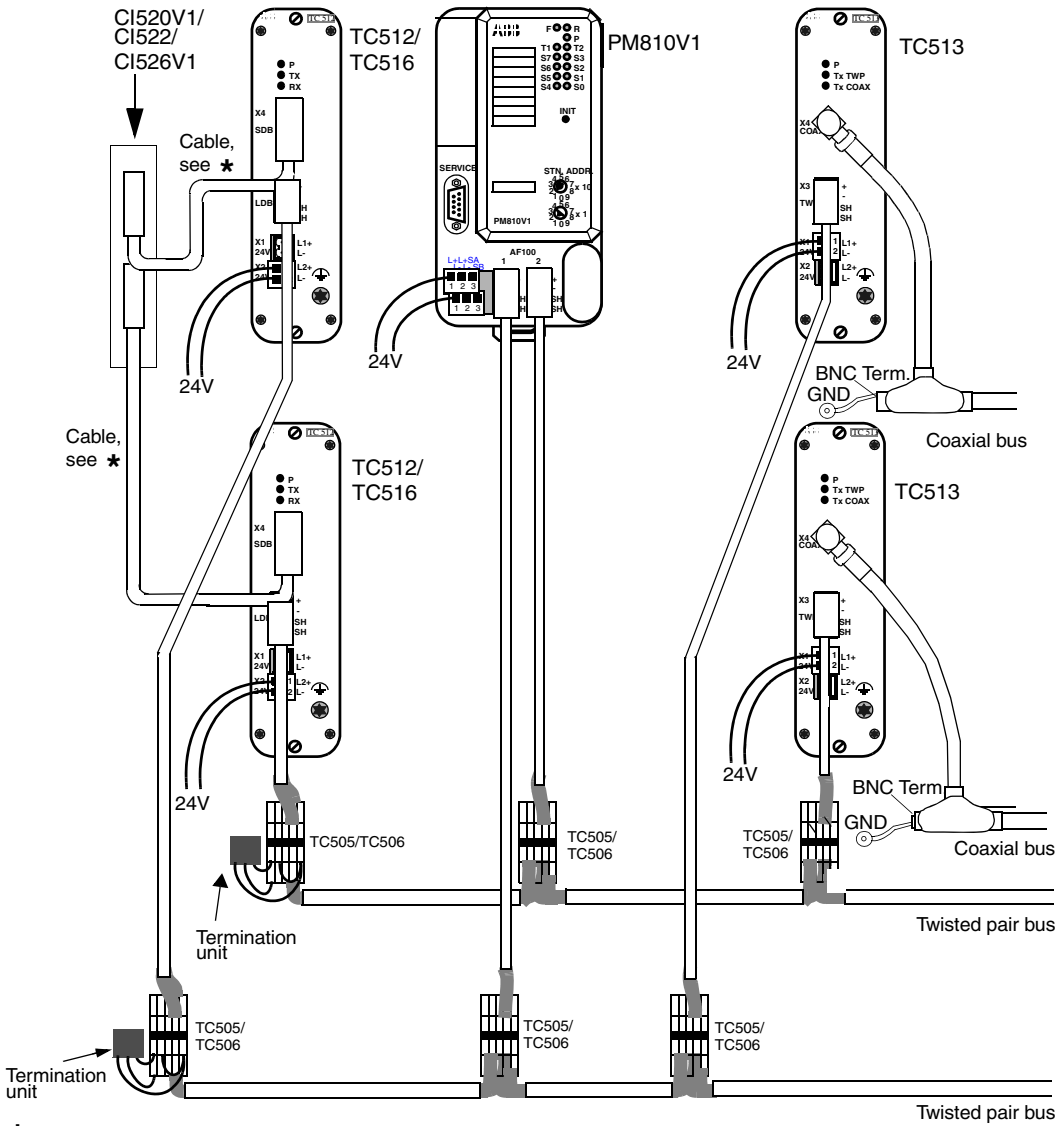
Table 6. Advant Fieldbus 100 Equipment Items (Continued)

Equipment Item	Type Designation	Description	Remarks
Advant Controller 160 Interface	CI630	Interface with coaxial connectors and integrated modem. Supports: Full redundant media Communication interface redundancy support.	
	CI631	Interface with Twisted Pair connectors and integrated modem. Supports: Full redundant media Communication interface redundancy support.	
Advant Controller 400 Series Interface	CI522A	Interface with connectors for special modem cables. Full redundant media support. Communication interface redundancy support. Long distance AF 100 support See Figure 1, Figure 2, and Figure 4.	
	CI522	Interface with connectors for special modem cables. Full redundant media support. Communication interface redundancy support. See Figure 1, Figure 2, and Figure 4.	Replaced by CI522A
	CI520V1	Interface with connectors for special modem cables. See Figure 1. Full redundant media support	
	CI520	Interface with connectors for special modem cables. See Figure 1. Reduced redundant media support, max 4 meters cable difference between any two station on the bus, on coaxial media only.	Replaced by CI520V1

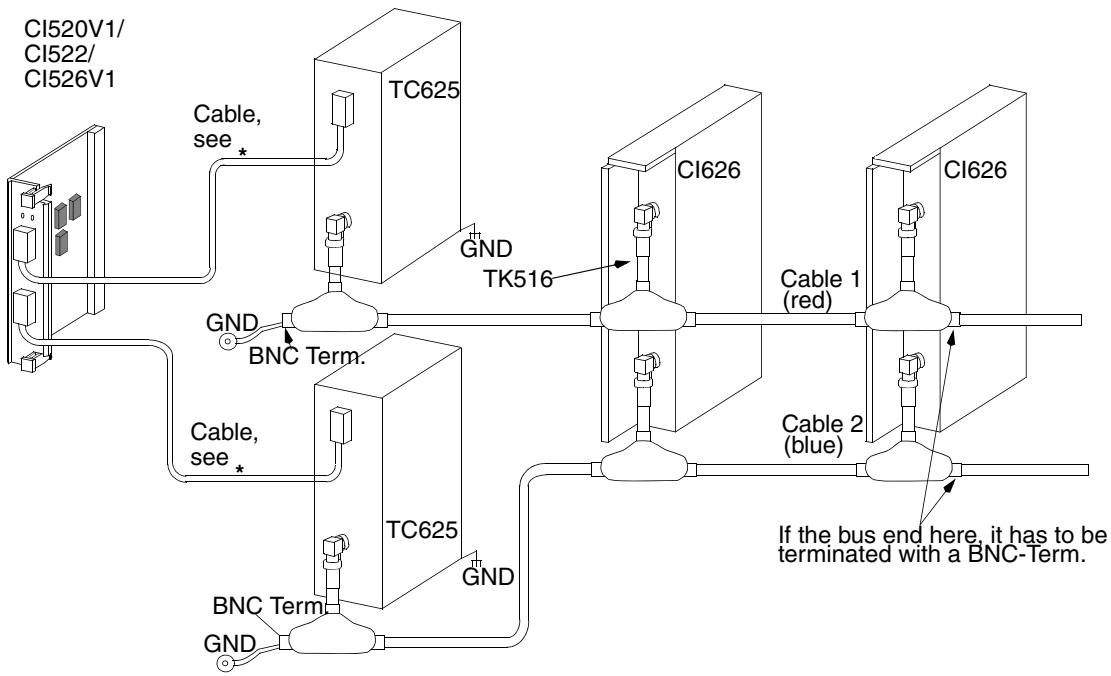


* For CI520V1 - Use cable TK515 (AC 450/AC 460) or TK593 (AC 410)
For CI526V1 - Use cable TK515
For CI522 - Use cable TK803V018 (AC 450/AC 460) or TK803V036 (AC 410)

Figure 76. Redundant Twisted Pair Configuration with Media conversion

Installation of Redundant Coaxial Cable

The user must also choose between a single bus media installation and a redundant media installation. In the redundant case two bus media are needed for each communication interface, as depicted in Figure 80.



* For CI520V1 - Use cable TK515 (AC 450/AC 460) or TK593 (AC 410)
For CI526V1 - Use cable TK549
For CI522 - Use cable TK803V018 (AC 450/AC 460) or TK803V036 (AC 410)

Figure 80. Redundant Coaxial Bus Cable installation

When redundant cable is used, different colors for the bending protection are used to easily identify the lines (red for cable 1, blue for cable 2).

Appendix A Technical Data

CI520[1] Communication Interface

The CI520 communication interface is used in the Advant Controller 400 Series. The communication interface CI520 is a submodule which can handle about 4000 CDPs and have full functionality of a bus administrator, it can be a bus master on the bus.

Front Panel of the Communication Interface CI520

The front panel of the CI520 contains the ordinary green “R” (Run) LED and the red “F” (Fault) LED.

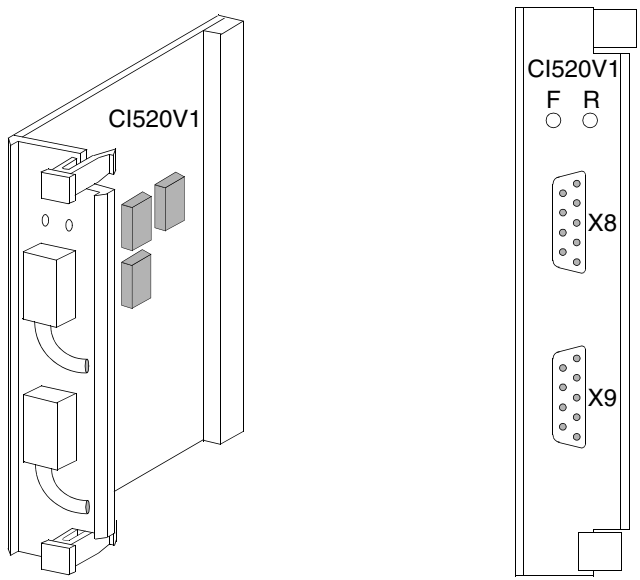


Figure 83. Front Panel of CI520V1

1. See Table 6 for information about CI520 variants

CI520 Strappings

CI520 has one strapping bar X12. X12 is used for test purposes only and must not be strapped.

Technical Data of Communication Interface CI520

The communication interface CI520 is inserted into the Advant Controller 450/460 submodule carrier or in the Advant Controller 410 CPU.

Power Consumption

Power consumption of the CI520 is 3.7 W (+5V) and 2 x 2.5 W (+24V).

Connection Specifications

Bus connection X8, cable 1 and X9, cable 2 on CI520:

- Type of connector — D-sub female, 9 pin
- Output voltage — RS-485, GND, 24 V
- Output current max. — 60mA
- Input voltage — RS-485
- Input impedance type — 12 kohm

Modem cable

- Cable number — TK515 (Used for AC 450)

- Connection — CI520 to TC625, TC512 or TC516
- Cable length — 1.80 m (5.9 ft.)
- It is connected one-to-one
  - Remarks — Right hand angled hood in CI520 end.

  Modem cable
  - Cable number — TK593 (Used for AC 410)
- Connection — CI520 to TC625, TC512 or TC516

Cables

Coaxial Cable

The communication interfaces CI520, CI522 and CI526 use TC625 as external modems while CI626 has integrated coaxial media modems. The modems are able to drive a 700 meter (2300 ft.) of 75 ohms coaxial cable with 80 AF 100 Stations connected.

The modems are galvanically isolated from the communication interface. The modems are HF/HV grounded through a capacitor. Furthermore, the Advant Fieldbus 100 must be grounded, but only in one end. If redundant cables are used they should be grounded in the same place (see Section 4, Installation and Start-up).

The Communication Interface CI520V1, CI522, CI526V1 and CI626V1 can handle two redundant bus cables (see Section 4, Installation and Start-up) but CI520V1, CI522, CI526V1 and CI526 must have one modem (TC625) per bus cable.

Each station connection consists of two bus cables, one drop cable and a BNC T-connection. One bus cable leading to the next communication interface, one to the previous communication interface and the drop cable leading to the actual node.