

AZDEC LTD

**CABLE JOINTING INSTRUCTIONS
FOR
WORKS ORDER No. EXAMPLE
(EXAMPLE)**

**Two Way Infra Red Communications System
(TWIRC)**

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AZDEC LIMITED

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0.1 Amendment Record

Issue	Date	Comment
1	-	Final issue

0.2 References

Installation Guide - Document Reference EXAMPLE/021

1. Background

Cable Reference: NSN 6145 99 439 4729

The Cable may be used for the transmission of high speed signals which conform to the RS 422 standard. The impedance of the cable is an important parameter with respect to the speed of transmission which may be achieved through a section of the cable. Changes of impedance are not acceptable. For this reason it is necessary to specify a cable jointing strategy which avoids changes in the impedance of the cable.

2. Cable Description

Cable Reference: NSN 6145 99 439 4729

The cable is of a screened twisted pair construction and consists of two pairs. Each of the pairs is individually screened.

Nominal overall diameter	6.9mm
Outer Sheath Colour	Black
Outer Sheath Material	Radiation cross linked Halogen Free Elastomer
Construction	Screened Twisted Pair, Two Pairs
Conductor	7/0.2mm (0.22mm ²)
Insulator	Cellular polyethylene
Type of screen	Each pair individually screened Aluminised Polyester Tape with drain wire 7/0.2mm (0.22mm ²)
Pair 1	Black and Red
Pair 2	Black and White
Minimum Bend Radius	50mm
Characteristic Impedance	100 Ω nominal
Mutual Capacitance	41pF/m nominal
Velocity	4.1ns/m nominal

3. Jointing Instructions

3.1 General

A section of cable between two units e.g. two Antenna, shall not have any intermediate joints. The cable shall be of one piece. It is not acceptable to have intermediate junction boxes of any sort. The termination of the cable at the end units is covered in the installation guide for the system (see references).

3.2 Base Station to Antenna

The termination of the cable at the Base Station and the Antenna is covered in the installation guide for the system. It is essential that the Installation Guide is read to determine the specific requirements of the TWIRC System.

The cable between the Base Station and the first Antenna shall be of one section with no joints.

Where it is thought that additional Antenna may be installed at a later date and where these Antenna are likely to be between the Base Station and the first Antenna then a loop of cable shall be left to allow later fitting of each additional Antenna. The length of the loop will depend on the anticipated location of the additional Antenna. The loop of cable shall be fixed into position consistent with good practice in order to avoid damage to the cable. The specified minimum bend radius shall be complied with.

3.3 Antenna to Antenna

The termination of the cable between two Antenna is covered in the installation guide for the system. It is essential that the Installation Guide is read to determine the specific requirements of the TWIRC System.

The cable between adjoining Antenna shall be of one section with no joints.

Where it is thought that additional Antenna may be installed at a later date and where these Antenna are likely to be between two existing Antenna then a loop of cable shall be left to allow later fitting of the additional Antenna. The length of the loop will depend on the anticipated location of the additional Antenna. The loop of cable shall be fixed into position consistent with good practice in order to avoid damage to the cable. The specified minimum bend radius shall be complied with.

3.4 Base Station to Co-Located Base Station

The termination of the cable between two Base Station is covered in the installation guide for the system. It is essential that the Installation Guide is read to determine the specific requirements of the TWIRC System.

The cable shall be of one section with no joints. The specified minimum bend radius shall be complied with.