



DEPARTMENT OF FIRE AND EMERGENCY SERVICES
DIRECT BRIGADE ALARM (DBA) TECHNICAL BULLETIN

April 2017 (ADVICE 14) R1

DBA Equipment Communications Connection Update

PSTN – BACKUP CONNECTION

DFES advises that the use of fire rated cable is no longer mandatory for the PSTN redundant path connection between the MDF/IDF and the FIP. Reference to use of fire rated cable in **DFES DBA STANDARDS** in Clause **3.1 WIRING TO TELSTRA LINES** and **4.1 TELSTRA MDF** is superseded.

Fire Service Agent (FSA) shall use Red Sheath flat 2C 0.75mm² TPS cable for this connection. Please also ensure that the metal junction box, with screwed 20mm double entry straight through, is used at MDF/IDF. Use of FLAT 4C, CAT3, CAT5 and CAT6 Communicational cable is not permitted to be used between FIP and MDF/IDF.

Note – this cable must comply with the cabling requirements of AS1670.1 (2015) Clause 3.24.3

GPRS – PRIMARY CONNECTION

DFES advises that a new mobile wireless communications technology has been approved for use by the CSIRO Activfire Approvals Division.

This new system will be known as “**QuickPoll**”. DFES will no longer require a redundant terrestrial based solution, i.e. PSTN or NBN connection, where the site reliability required by AS1670.3 is being achieved using QuickPoll.

However, it may be that where a site has poor wireless (3G) signal strength, then DFES will be required to connect to the NBN to ensure compliance to AS1670.3

Prior to making that decision, DFES will require that all solutions have been utilised prior to connecting to the NBN

With this in mind, DFES is mandating to industry that the FSA will install a coaxial antenna cable in cases where the required signal strength is not sufficient at the FIP, to assist achieve network reliability as required by AS1670.3

Therefore, DFES requires the antenna cable to be installed adjacent to the external bell and strobe, or some other location external to the building which shall be easily accessible, and does not require use of Elevated Working Platforms (EWP).



The FSA is to install an IP55 rated junction box above the external bell & strobe, where antenna and cable will be joined on external walls. For roof installations, the junction box is not required.

For tower locations please use following link, to determine where antenna cable shall be run for best performance. <https://oztowers.com/Home/Query>

Other locations are also permitted, however they are not to be considered as standard installations, and therefore additional installation cost will be recovered from requestor. Such locations are to be reviewed by the DFES contractors, and a quote shall be provided to the requestor before commencing the work.

During the initial ASE installation, Fire Alarm Monitoring Services (FAMS) will always attempt to install the flush mounted with the wall, FAMS may use the coaxial antenna cable provided by the FSA.

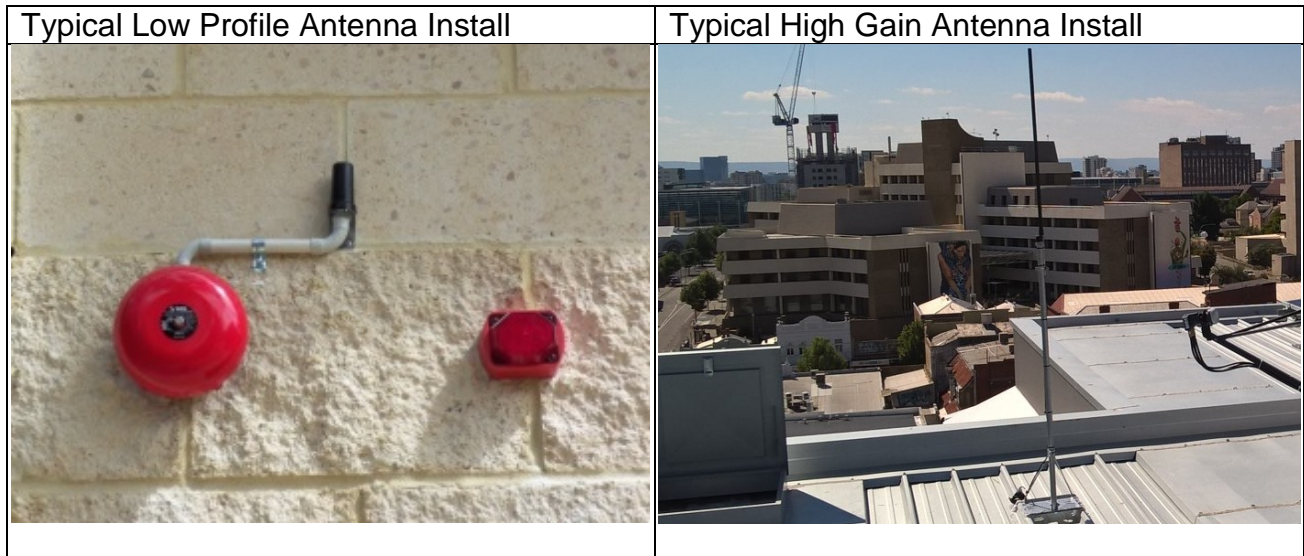
DFES requires the use of the following coaxial antenna cables based on cable distance:

Supplier	RFI Part No	RFI Cable Name	Cable length	Nominal Loss
RFI Wireless	9006-100	CELLFOIL 9006	10 - 15m	2.95dB
RFI Wireless	LDF4-50A	LDF4-50 HELIAX	Above 15m	2.2dB - 2.88dB

Please note: For cable distances over 10m, High Gain Mobile Antenna will be required. As length of that antenna is over 1m, and additional antenna mount is required, normally also over 1m, FSA is to consider antenna height when choosing location for cable runs over 10m.



EXAMPLE OF TYPICAL MOBILE ANTENNA INSTALLATION



For further advice or clarification re this matter, contact the DBA Contracts Manager at DFES on 08 9395 9865 or 0408 958 483, or email jeff.morton@dfes.wa.gov.au

For advice on Antenna locations and **signal strength requirements**, please contact the FAMS Technical Officer, Denis Orozovic on 1300 793 722, or email denis.orozovic@chubb.com.au