

March 2023

CASE STUDY

DUDLEY METROPOLITAN
BOROUGH COUNCIL UPGRADE
TO LD2 & LD1 FIRE SYSTEMS
AND ENHANCE RESIDENT
SAFETY



TOGETHER WITH

Dudley
Metropolitan Borough Council

TOGETHER WITH

DUDLEY METROPOLITAN BOROUGH
COUNCIL UPGRADE TO LD2 & LD1
FIRE SYSTEMS AND PUT RESIDENT
SAFETY AT THE FOREFRONT OF
THEIR DEVELOPMENT STRATEGY

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Dudley Metropolitan Borough Council upgraded properties in accordance with British Standard BS 5839-6 : 2019+A1:2020 across their housing portfolio to LD2 and upgraded their higher-risk accommodation to LD1, to ensure the highest level of protection for their residents.

In phase one they streamlined installation by utilising Aico's Ei3000MRF radio frequency module. In the second phase of this project, they responded with further proactive measures to ensure resident safety after a carbon monoxide activation was treated as a false alarm by a resident.

Dudley MBC, located in the West Midlands manages a housing portfolio of over 21,000 properties across the Dudley district. They also work in partnership with a number of housing associations to help meet housing needs, their aim is for residents to have access to a range of housing types that are affordable, accessible and attractive, meeting the needs of their diverse communities

PHASE 1: - ENSURING PROJECTED TIMESCALES

During the rollout of the fire system upgrades it quickly became apparent that the in-house team were being hindered by the number of installations, and consequently, void works were not being completed in anticipated timescales. This delay started to impact Dudley Council's ability to offer their residents the level of service they aim to provide.

A number of the properties required upgrading the current mini trunking to cable runs with an increased size, to accommodate the new cabling for a hard-wired interconnection between alarms. To find an alternative solution to hard wiring the alarms they approached their local Aico Regional Specification Manager (RSM), Gareth Butler for support.

IMPLEMENTING RADIO FREQUENCY WIRELESS INTERCONNECTION

The solution identified was the introduction of the Aico Ei3000MRF module, which would significantly reduce installation time as the interconnection between detectors is provided through Radio Frequency technology rather than the traditional hardwired method.

The Ei3000MRF SmartLINK module can plug into the head of any 3000 series alarm to enable SmartLINK capabilities, which include:

- Radio Frequency wireless interconnection, which means no need for cable runs
- When one alarm is triggered, all others sound throughout the property
- Expanding existing systems with SmartLINK technology in the future would be easy

Symon Thompson, Team Manager of the electrical department at Dudley MBC put together a business case which showed that through the use of Aico's Ei3000MRF module, there would be no impact on project costs, he commented on the project:

We have been using Aico products for 25+ years now and we have never had issues with them. It quickly became clear through trying to achieve compliance with BS5839-6 we were impacting our KPIs. We spoke with Aico about potential solutions and the SmartLINK modules were identified as the resolution.

When I put the numbers together it became a simple solution to implement. The effects were seen immediately and the engineers were very happy to be able to use them and complete an installation quickly and with limited disruption to the existing electrical installation.

Symon Thompson, Team Manager of the electrical department at Dudley MBC



The business case was approved and before the rollout of the Ei3000MRF module, Aico provided their award-winning FIA CPD accredited Expert Installer training to the electrical team. The training was arranged with the team to increase product knowledge and review house coding procedures, to ensure a smooth transition to the new method of installation.

ACHIEVING KPI'S AND INCREASING ASSET MANAGEMENT

To meet British Standard BS 5839-6, Dudley MBC is required to provide smoke and carbon monoxide (CO) detection to a minimum of an LD2 system across their housing stock and this has been a significant undertaking by the local authority. Utilising SmartLINK technology has increased valuable operative time back, to ensuring they can remain within their KPI targets for void, planned and reactive works targets.



To work with a client who is doing the right thing by the British Standard and upgrading their stock as required has been fantastic. When they came to Aico with the problem they had been encountering, it was great to be able to offer a cost-effective solution that worked so quickly. Training is a key part of any new product or change in installation method, so it was great to work with the electrical team and ensure they knew what and where to install regarding smoke and co-detection, and also how to house code the products and test them to ensure they are installed and working correctly.

Gareth Butler, Regional Specification Manager at Aico



Dudley MBC has decided going forward all new installs, in any property type will include Ei3000MRF modules. This has returned the electrical team's productivity to the level prior to the commencement of the upgrades.

PHASE 2 - ENHANCING RESIDENT SAFETY

Once the rollout of the fire alarm system upgrades had been completed, one of the properties with CO detection installed experienced a near miss due to a CO activation being treated by the resident as a false alarm.

An Ei3028 multi-sensor heat and CO alarm had been installed in the property's kitchen to provide protection. The system had been installed whilst the property was void, so although key information had been left in the property the resident had not read it.

Following this event, Dudley MBC wanted a way to ensure residents were able to distinguish between different activations on their fire and CO detection systems and reached out to their Aico RSM Gareth Butler to provide support.





STRENGTHENING RESIDENT ENGAGEMENT THROUGH EDUCATION

The first solution proposed was the addition of Aico's Ei450 control switch to the alarm system. The benefits of this include:

- In the event of an alarm activation the switch will clearly display which event type is happening; CO or fire.
- This device could be added to the system easily via Radio Frequency as SmartLINK-enabled devices are installed in all new systems
- As 3000 series alarms are being used with SmartLINK modules, the sound mimic feature can be utilised. (Sound mimic is where regardless of activation the same alarm sound is heard across all detectors on the system, whether they be a smoke, heat or CO detector).
- The ability for residents to easily test their smoke alarms due to the convenient location of the control switch.
- The memory function is useful for the reactive maintenance team to identify the last alarm to sound making callouts more efficient and cost-effective.

The second solution was for Aico to provide a bespoke literature template that can be left with every installation to explain what is installed and how it can be used and tested.

The Ei450 control switch is now fitted as standard by Dudley MBC on every installation, the ability to clearly show the activation type to the residents has been really beneficial. The Council can respond to events correctly to prevent any issues such as the one identified. The switch is fitted in all hallways and a clear explanation is given on the controller and the different alarm activation sounds that can be given.



As always Aico have a simple and effective solution to a problem. The control switch has been easy to retrofit into the installs we had already completed. The way they will quickly offer assistance to any problem we face is great, creating documents for us to use to educate our customers and ensure our operatives can clearly explain how systems work and the different sounds they make is invaluable.

Symon Thompson, Electrical Team Manager for Dudley Council



INTEGRATING IOT SOLUTIONS IN THE FUTURE

Dudley MBC, plan to retrofit the current installs with the Aico Ei1000G Gateway, which connects every SmartLINK-enabled device in a system on an online portal. This provides data insight into each property through an easy-to-use dashboard, ensuring monitoring and maintaining your stock of alarms is made easy.



Track alarm performance in real-time



Improve Compliance and Asset Management



Forecast alarm replacement and maintenance



Identify trends in alarm activations

Aico will continue to offer support and look forward to working with Dudley Council on future home life safety projects.

To find out how your local Regional Specification Manager can support you please visit - <https://www.aico.co.uk/find-a-regional-spec-manager/>