Date: April 2023 Marketing Bulletin HW23.2

To: All Engineered System Distributors (ESD)

New ERCES (BDA & Fiber DAS) Training Now Available!

ERCES / Bi-Directional Amplifier (BDA) System: Public Safety Signal Boosters & Fiber DAS
Enhancing In-Building Emergency Responder Radio Communications

Fiplex by Honeywell is pleased to announce the launch of our updated ERCES (BDA & Fiber DAS) Training Program.

We offer a FREE (no tuition cost) comprehensive Level 1 & Level 2 training and certification:

- **Level 1 Certification**: Self-paced online training modules through the My Honeywell Buildings University portal.
    - *ERCES - 700/800 - BDA Certification Training - Level 1*: New simplified ERCES 700/800 BDA factory certification training with self-paced modules (~6 hours) focused on 700/800 0.5-2W BDA system
    - *ERCES - VHF, UHF,700/800 - BDA & Fiber DAS Certification Training - Level 1*: Factory certification training with self-paced modules (~16 hours) covering the complete BDA & Fiber DAS portfolio
- **Level 2 Certification**: Hands-on instructor-led training with two (2) different options to register through the My Honeywell Buildings University portal.
    - *ERCES - BDA & Fiber DAS Hands-on Certification Training - Level 2 (VILT)*: Virtual, instructor-led, hands-on factory certification training (~2-4 hours); requires BDA or Fiber DAS equipment in hand to conduct the hands-on
    - *ERCES - BDA & Fiber DAS Hands-on Certification Training - Level 2 (ILT)*: In-person, 2-day instructor-led, hands-on factory certification training; does not require BDA or Fiber DAS equipment in hand to attend the class

NOTE: FCC GROL License is not included in the training. Please refer to the additional FCC GROL licensing resources section to pursue GROL directly.

We are also pleased to announce virtual **FREE ERCES sales training** (VILT, ~ 2 hours) through My Honeywell Buildings University. This ERCES Sales Training is intended for ESD/Dealer project managers, estimators, and sales managers interested in learning about the ERCES industry and the Fiplex by Honeywell product portfolio.

Please refer to subsequent pages for additional information on registering, tools & equipment purchasing, GROL License resources, and more support materials.

How to Register for our Fiplex Training Opportunities:

- Step 1: Please login to My Honeywell Buildings University - https://myhoneywellbuildingsuniversity.com/training/login

- Step 2: Once you are logged in, search for the course

  - Level 1 Certification
    - If your jurisdiction has 700/800 projects, search for the course *Fiplex by Honeywell ERCES - 700/800 - BDA Certification Training - Level 1*

    - If your jurisdiction has VHF/UHF and 700/800 BDA & Fiber DAS projects, search for the course *Fiplex by Honeywell ERCES - VHF, UHF,700/800 - BDA & Fiber DAS Certification Training - Level 1*

    NOTE: You will need to pass the Exam in the course with a minimum score of 70% to get certified and download the Level 1 certificate from My Honeywell Buildings University.

  - Level 2 Certification
    - Search for the course *Fiplex by Honeywell ERCES - BDA & Fiber DAS Hands-on Certification Training - Level 2 (VILT)*
      NOTE: A maximum of four (4) technicians registered from a company can attend a virtual session hands-on together from the same location. Require Level 1 certification to be completed, require BDA or Fiber DAS equipment in hand.

    - Search for the course *Fiplex by Honeywell ERCES - BDA & Fiber DAS Hands-on Certification Training - Level 2 (ILT)*
      NOTE: As the training roadshow location & dates are finalized, they will be available to register through the course above

  - ERCES Sales Training: Search for the course *Fiplex by Honeywell ERCES Sales Training*

NOTE: If you face any issues or have any questions, please get in touch with training.bda@honeywell.com

How to Purchase Tools & Test Equipment:

To be ERCES certified and install projects, each Company needs to have purchased at least one (1) set of the required essential test equipment and tools required to deploy and service BDA systems. The chart below provides the required parts to order from Honeywell Fire wholesale distributors like ADI and WESCO (formerly Anixter).

Please note: ESD/Dealers must have at least one complete set of test equipment, tools, and radios per location; if you have a set acquired prior to Honeywell BDA training, you can use the same tools & test equipment for training. Attendees also require a Windows 7 or 10 laptop with Wi-Fi access and USB ports.

Tool / Test Equipment	Honeywell Part Number	Description
1 Spectrum Analyzer (Required)	BDA-TOOL-SA	Spectrum Analyzer (Required)
	BDA-TOOL-SA-BAG	Carry Bag for Spectrum Analyzer (Recommended)
	BDA-TOOL-SA-VSWRBG	VSWR Bridge for Spectrum Analyzer (optional)
1 RF Test Kit (Required to use with Spectrum Analyzer)	BDA-TOOL-RFTESTKIT	BDA RF Test Install Kit (Required)
1 Radio with Configuration Software & Programming Cable (Required)	BDA-TOOL-RADIO-VHF	VHF Radio (At least one radio required - VHF or UHF or 700/800 required, choose based on your jurisdiction requirements)
	BDA-TOOL-RADIO-UHF	UHF Radio (At least one radio required - VHF or UHF or 700/800 required, choose based on your jurisdiction requirements)
	BDA-TOOL-RADIO-78	700/800 MHz Radio (At least one radio required - VHF or UHF or 700/800 required, choose based on your jurisdiction requirements)
	BDA-TOOL-RADIO-SWC	Radio Configuration Programming Cable (Required)
1 Cable Trimming Tool (Optional)	BDA-PCT012-2	Trilogy PCT012-2, Power Plenum Strip Tool for 1/2" for Non-Radiating, Plenum, and In-Conduit Cable

NOTE: You can also purchase the PCTEL kit for conducting surveys and automated reports.

For Virtual Level 2 BDA Hands-on only, order the below parts from Honeywell Fire wholesale distributors or alternatively use the equipment ordered for your first project:

Part	Description
HONBDA-D-7S27B	Fiplex by Honeywell Digital Class B Dual Band 700/800, 0.5W, DC
HONBDA-BTTY100055N	Fiplex by Honeywell BBU, 55AH, 24VDC, batteries not included
BDA-TRN-PDASKIT	For 700/800 frequencies - Includes 3 DAS/Service Antennas, 3 Jumpers, 1 Power Splitter, 2 Directional Couplers, 2 Termination Loads, 1 Donor Antenna

Additional FCC GROL Licensing Resources:

NOTE: The FCC does not require an FCC GROL license for the installation of commercial two-way radio equipment, including BDAs; however, IBC and IFC do have that requirement, as well as many state building codes and Authorities Having Jurisdiction (AHJs).

Below are a few recommendations of study guides and testing sites from our Training experts and fellow Dealers who have gone through licensing:

- Recommended Website: Previously used by other Dealers, training, and licensing was accomplished quickly: https://uscaptainstraining.com/
- Elkins Training Classes: http://www.elkinstraining.com/courses.asp
- Recommended Study Book: "GROL+RADAR book & software" by Gordon West, Pete Trotter, Eric Nichols. Available on Amazon: https://www.amazon.com/GROL-RADAR-book-software- Gordon/dp/0945053614. Please note this book also includes software that produces sample tests, and if the user answers a question wrong, it directs you back to that subject matter.
- ETA Testing Sites – locate Proctored test facilities by zip codes: https://www.eta-i.org/test_sites.html
- FCC Web page with info: https://www.fcc.gov/wireless/bureau-divisions/mobility-division/commercial-radio-operator-license-program
- You can download question pools from here: https://www.fcc.gov/wireless/bureau-divisions/mobility-division/commercial-radio-operator-license-program/examinations#block-menu-block-4
- Testing locations: https://www.fcc.gov/wireless/bureau-divisions/mobility-division/commercial-radio-operator-license-program/commercial
- NOTE: You only need elements 1 & 3 for GROL