

Westell® | PS51080E 1/2W & PS71090E 2W UL2524 & NFPA Public Safety BDAs



General Information

Westell's PS51080E and PS71090E BDAs are enhanced versions of the industry favorite PS series with several new features including built-in battery charger, all required NFPA 2019 alarms, built-in annunciator panel, improved cable feed-through options, uplink squelch, and an NRTL listing to ANSI/UL 2524, the latest standard for public safety DAS systems.

The integrated BBU greatly simplifies installation and reduces installed costs. Order BBC-03 separately to house batteries.

The PS enhanced series BDAs are NFPA 72/1221 compliant with red NEMA Type 4 enclosure, independent control per band, up to 90dB of gain and 2 watts RF output.

Frequency Range

- Uplink 788-805 / 806-809 / 806-816 / 806-824 MHz
- Downlink 758-775 / 851-854 / 851-861 / 851-869 MHz

Product Highlights

- Supports dual-dand 700/800 MHz
- NFPA 72/1221 compliant Class B amplifier
- 27 dBm, (1/2W) & 33 dBm (2W) power output DL/UL
- 80 dB or 90 dB gain
- NRTL listings: ANSI/UL 2524, UL 62368-1, UL 508A
- Built-in battery charging and alarm circuitry
- Redundant power supplies, operates on 110VAC or 24VDC
- Built-in annunciator
- Uplink squelch
- FirstNet ready
- Low power consumption
- Passband options - *Can be turned on/off independently*
 - UL 788-805 / DL 758-775 MHz (17 MHz)
 - UL 806-809 / DL 851-854 MHz (3 MHz)
 - UL 806-816 / DL 851-861 MHz (10 MHz)
 - UL 806-824 / DL 851-869 MHz (18 MHz) (2 Watt unit only)
- Independent power and gain control per band
- Sharp SAW filtering reduces interference from competing signals
- Easy to install and maintain
- Dry contacts for fire panel connection
- Terminal block to support EOL resistors
- NEMA Type 4 3/4" conduit glands for AC, battery & alarms
- Intelligent oscillation management and self-healing
- Shutdown in the event of non-correctable conditions
- VSWR antenna monitoring
- Supports both digital and analog modulation including P25 phase 1 & 2
- Supports SNMP



PS71090E Public Safety BDA shown

Alarms

- BDA amplifier failure
- Oscillation
- Battery charger fail
- AC power failure
- Donor antenna failure
- Low battery

Ordering Information

| | |
|------------------|---|
| CS14-720-820 | PS51080E 700/800 PS BDA, 80 dB gain, 1/2W |
| CS14-722-822 | PS71090E 700/800 PS BDA, 90 dB gain, 2W |
| CS19-BBC-003 | NEMA/UL50E Type 3R battery cabinet for PS series Class B BDAs |
| CS19-PYL12V100FT | 12V, 100AH sealed lead acid battery (2 required for 24+ hours of backup time) |
| CS19-PYL12V45FS | 12V, 45AH sealed lead acid battery (2 required for 12+ hours of backup time) |

Certification References

| | |
|--------------|---|
| ANSI/UL 2524 | In-building 2-Way emergency radio communication enhancement systems (ERCES) |
| UL 62368-1 | Audio/video, information and communication technology equipment - Part 1: Safety requirements |
| UL 508A | Industrial control panels |
| FCC ID | NVRPS71090E-PS78 |



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Electrical Specifications

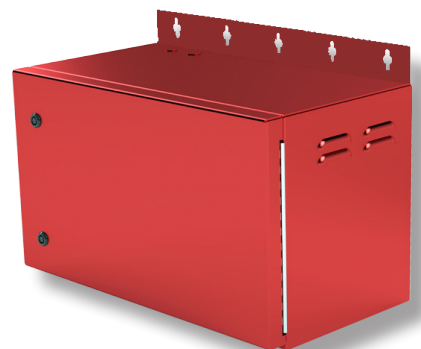
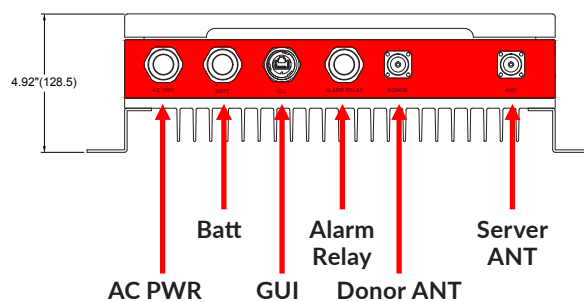
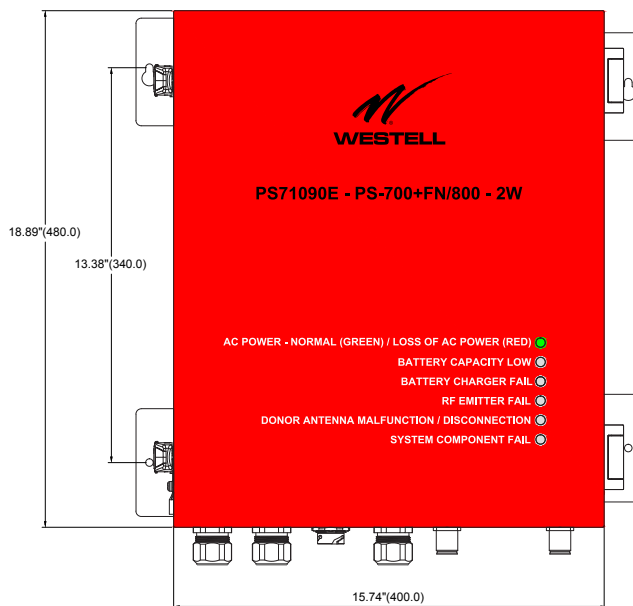
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|-----------------------------|------------------------------------|
| Main power input | 110 VAC (88-264VAC) |
| AC power consumption (max.) | 1/2W = 140 Watts, 2W = 165 watts |
| Battery charger output | 27.8VDC |
| DC input range | 24 - 30VDC |
| DC power consumption | 1/2W = 45 Watts, 2W = 75 watts |
| PS51080E output power | +27 dBm 1/2W, composite |
| PS71090E output power | +33 dBm 2W, composite |
| Gain | PS51080E = 80 dB, PS71090E = 90 dB |
| Noise figure @ max. gain | <5 dB Typ. |
| AGC dynamic range | 25 dB |
| Gain adjustment range | 30 dB ±1 dB |
| VSWR | <2:1 |
| Propagation delay | 4us max. |

Mechanical Specifications

| | |
|---------------------------|---|
| Dimensions (H x W x D) | 18.89 x 15.74 x 4.92 in |
| Approximate weight (lbs) | 42.5 |
| Mounting | Wall mount |
| Weatherproofing | IP65/NEMA Type 4 |
| Cable feedthroughs | Cordgrips and 3/4" flex conduit fittings included |
| Connectors | |
| Antenna ports | 4.3-10 (F) |
| User interface: GUI & NMS | RJ-45 |
| Alarm relay | Internal terminal strip |
| AC&DC power | Internal screw terminals |
| Operating temperature | -30° to 50° C |

BBC-003 & Battery Specifications

| | |
|--------------------------------|-------------------|
| BBC-003 Dimensions (W x H x D) | 26" x 15.6" x 14" |
| Weight | 35 lbs |
| Mounting | Wall mount |
| CS19-PYL12V100FT dimensions | 20" x 9.3" x 4.2" |
| CS19-PYL12V100FT weight | 77 lbs |
| CS19-PYL12V45FS dimensions | 11" x 7.8" x 4" |
| CS19-PYL12V45FS weight | 33 lbs |



BBC-003 Battery back-up enclosure shown



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