

Electronic Displays



BLAIR COMPANIES
ARCHITECTURAL IMAGING
SIGNS • FIXTURES • LOGISTICS

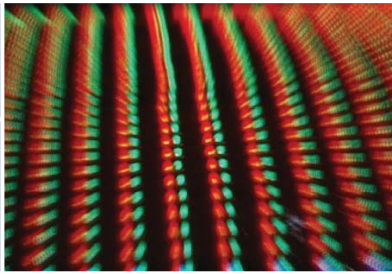


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ARCHITECTURAL IMAGING
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BLAIR COMPANIES is a leading provider of image-related services for major chain store accounts in a variety of industries. Blair fabricates, installs and maintains signs, fixtures, architectural imaging, kiosks, and lighting. We provide program management, engineering, manufacturing, and installation of signage, millwork, and lighting as well as distribution and logistics of lighting and other construction supplies

About Blair Companies...

As a full-service company, Blair has set new standards for high-service, low-cost image and construction program management. Blair's sign division has deep expertise in all types of sign manufacturing, permitting installation and turnkey program management throughout North, Central and South America for large multi-site accounts. Blair's fixture division brings similar skills to bear on all types of store fixtures and millwork packages. Blair's logistics division brings these same chains national 3PL procurement, warehousing and distribution for lighting and a wide array of FF&E, OS&E and construction supplies.

Our manufacturing capabilities are comprehensive ranging from complex metal face applications to large format distortion screened vacuum formed faces, channel letter fabrication, and architectural fascia and entry element fabrication. We also have our own LED modular system for certain applications.

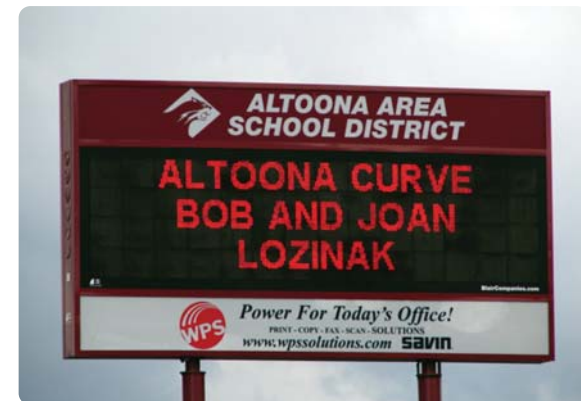
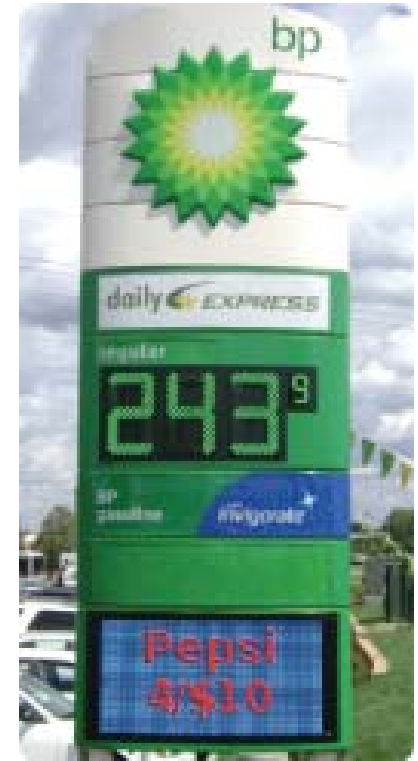
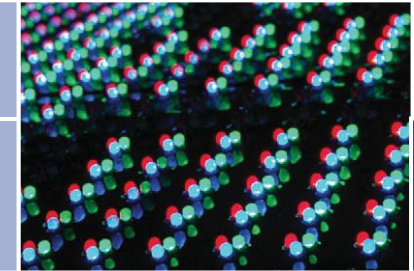


Customers include: Valero, Murphy Oil, Fina, Caltex, Gulf, BP, Sheetz, KFC, Darden Restaurants, General Motors, Dollar Tree Stores, Rite Aid, GNC, Regis/Master Cuts, Claire's, Hallmark, Penske, Fuddrucker's, First Commonwealth Bank, Bank of America, UPS, FedEx, Hardees, Walmart, and BMW

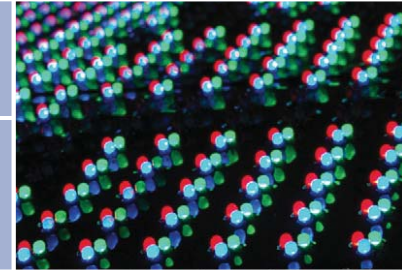
Blair has several strong relationships with international suppliers for both component and finished product. These relationships span over South America, Europe, Middle East and Asia.

Blair directly manages work anywhere in the Continental US, Hawaii, Alaska, Puerto Rico, Bermuda, Caribbean, and Canada. We have a formal alliance with a firm in Germany and in Australia, to support our clients interested in global single point accountability.

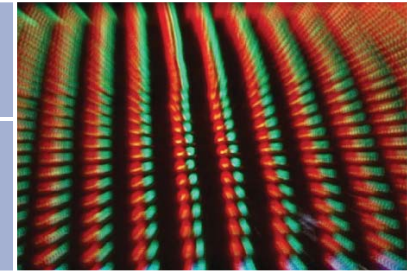
EMC Electronic Message Centers



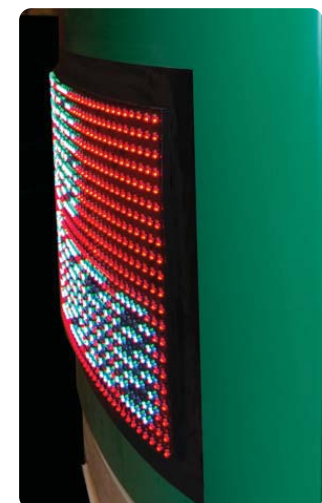
EPCU Electronic Price Control Units



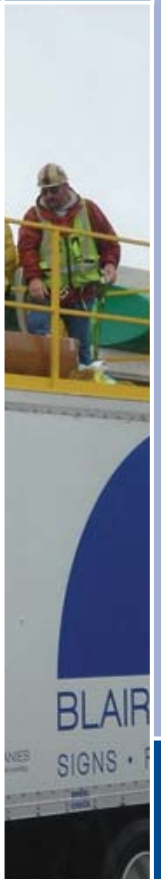
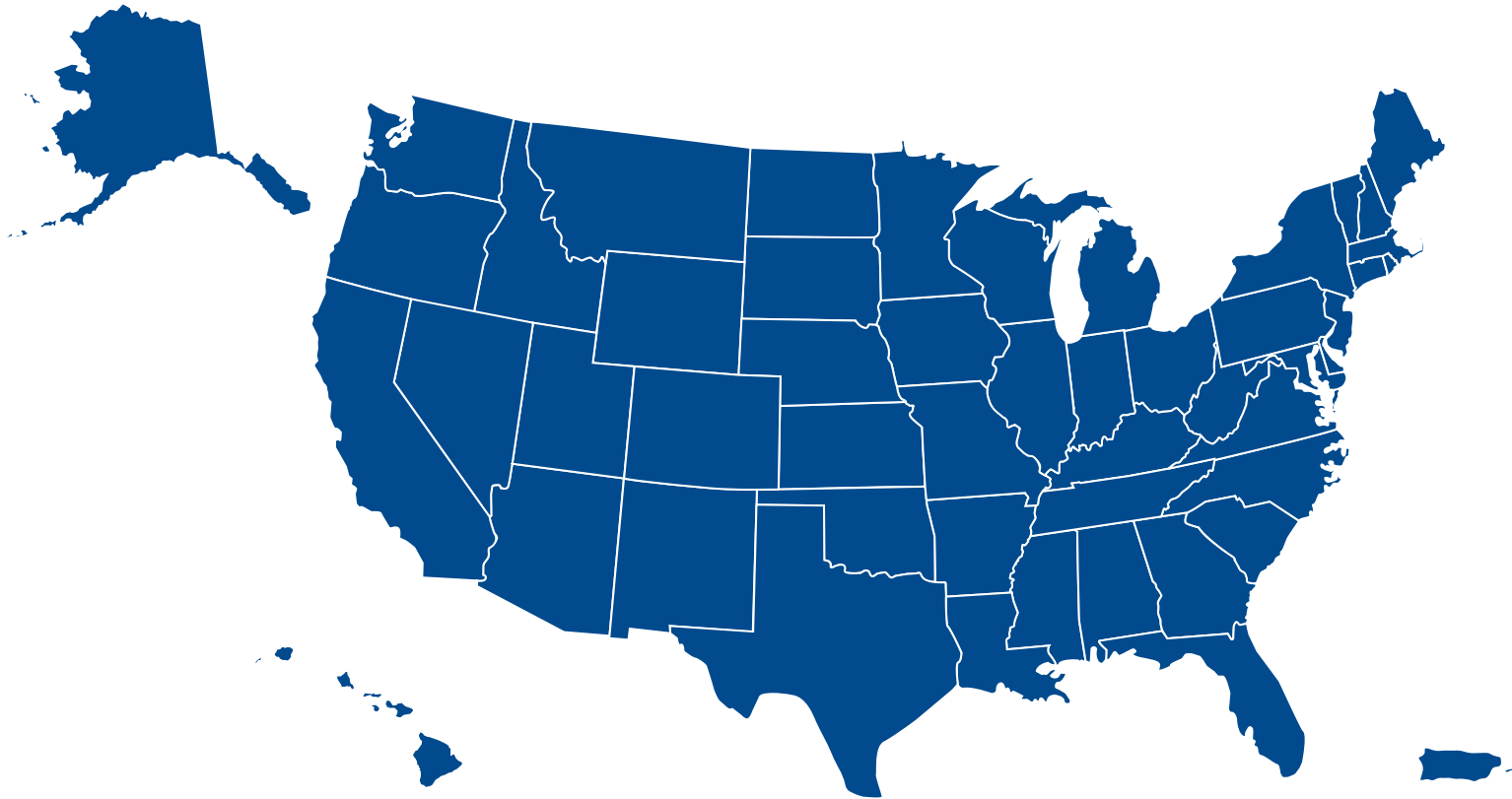
BLAIR ELECTRONIC DISPLAY retrofit advantage



- **TILES MOUNT AND CONFORM TO A CURVED FACE**
- **ELIMINATES COSTLY STEEL STRUCTURE TO MOUNT CONVENTIONAL EPCUs AND EMCs**
- **EXISTING SIGN FACE CAN BE REUSED**

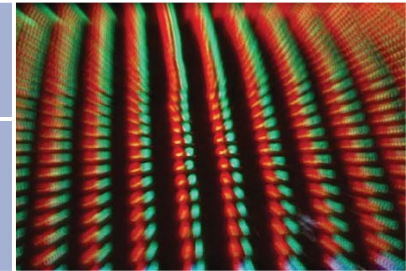


National Installation Network



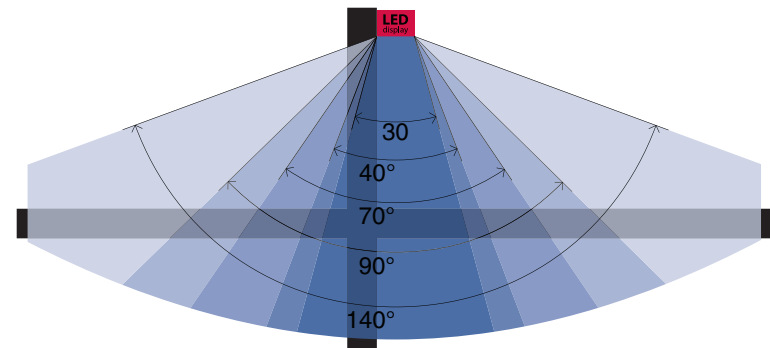
- **Certified installers**
- **Equipped with spare parts kit**
- **Online product support: www.blaircompanies.com/ledsupport**

Electronic Display Viewing Facts



SIGN POSITION VS VIEWING AUDIENCE

An Electronic Sign's placement will affect minimum and maximum viewing distances. The angle at which the display can be effectively viewed at is referred to as the viewing angle. Viewing angles vary from manufacturer to manufacturer. The intended viewing audience must be within the viewing cone of the display.



text viewing ranges *approximate*

character size	maximum viewing time <i>seconds</i>								max viewing distance
	5 mph	15 mph	25 mph	35 mph	45 mph	55 mph	65 mph	75 mph	
2in/51mm	13.7	4.6	2.7	1.9	1.5	1.2	1.1	0.9	100ft/30m
6in/152mm	41.1	13.7	8.2	5.8	4.6	3.7	3.2	2.7	300ft/91m
9in/229mm	61.6	20.5	12.3	8.8	6.8	5.6	4.7	4.1	450ft/137m
13in/330mm	89.0	29.7	17.8	12.7	9.9	8.1	6.8	5.9	650ft/198m
18in/457mm	123.3	41.1	24.6	17.5	13.7	11.2	9.5	8.2	900ft/274m
24in/610mm	164.4	54.8	32.8	23.4	18.2	14.9	12.6	10.9	1200ft/366m
36in/914mm	246.9	82.2	49.2	35.1	27.3	22.3	18.9	16.4	1800ft/549m
48in/1219mm	328.8	109.6	65.6	46.8	36.4	29.8	25.2	21.8	2400ft/732m

outlined blocks represent recommended exposure time

Electronic Message Centers

Use electronic displays to gain a competitive edge by attracting attention and stimulating interest. Enjoy additional benefits of saving time, saving money, improving safety, and effortlessly changing prices and messages as often as you need.



EMC BENEFITS

EASY TO INSTALL	built for ease of retrofit
COST EFFICIENT	electronic signs typically pay back in less than a year
SAFE	safer than manual changes (UL Approved)
VISIBLE	wide viewing angle, high LED counts, super bright 4230 mcd median LED intensity (green)
RGB LEDs	long 70k+ hr LED life
CUSTOMIZABLE	Blair EPCU/EMC tiles are designed to maximize sign area
COMMUNICATION	WiFi, fiber optic, and ethernet communications options available
CAPABILITIES	can display graphics, video, and scrolling text
DIMMING	adjustable light levels via photoeye
INSTALLATION NETWORK	nation wide certified installer network equipped with spare parts kit
WARRANTY	3-year parts warranty ; 3-year labor if installed by manufacturer or certified installer

EMC Control Options



Electronic displays can be controlled in a variety of ways. Blair EPCU/EMCs are configured to accept all control methods utilizing the same data-entry terminal. Control methods can be changed in the field as necessary.

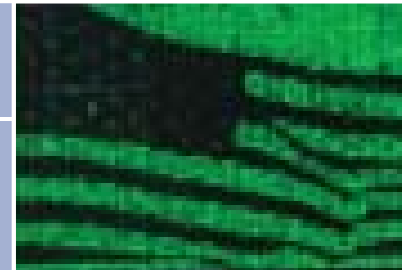
HARD WIRE CONTROL - laptop is wired directly to the sign via a dedicated CAT5 or fiber optic cable.
Generally used for new build sites.

RF or WiFi CONTROL - laptop is connected to an RF (radio frequency) transmitter in the store and the sign is connected to an RF receiver in the sign.
Short and long range radios and WiFi available. Ideal for reimages; requires no additional power or control wiring.

ETHERNET/IP LAN - for remote connectivity and control



BLAIR Mono EMC specifications



monochrome emc spec 18mm pitch

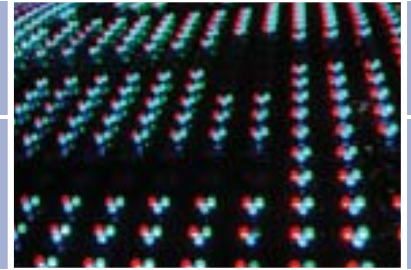
	64" 1x	64" 2x	81" 1x	81" 2x	81" 3x	8' BP heritage SH	8' BP heritage DH	6' BP heritage SH	6' BP heritage DH
emc sku #	64-P-BSCLK-M	64-P-BSCLK-DH-M	81-P-BSCLK-M	81-P-BSCLK-DH-1-M	81-P-BSCLK-DH-2-M	BSC-BPH8-SH-M	BSC-BPH8-DH-M	BSC-BPH6-SH-M	BSC-BPH6-DH-M
pixel matrix	16x72	32x72	16x90	32x90	48x90	16x108	48x108	16x90	32x90
display dim	11.4" x 51.3"	22.8" x 51.3"	11.4" x 64.1"	22.8" x 64.1"	34.2" x 64.1"	11.4" x 76.9"	34" x 76.9"	11.4" x 64.1"	22.8" x 64.1"
max lines text	2	4	2	4	6	2	6	2	4
min char ht	4.5" char	4.5" char	4.5" char	4.5" char	4.5" char	4.5" char	4.5" char	4.5" char	4.5" char
max amp req	3A	6A	4.5A	7.5A	12A	4.5A	14A	4.5A	8A
avg amp req	1A	2A	1.5A	2.5A	4A	1.5A	5A	1.5A	2.5A
perimeter contrast	2" min	2" min	2" min	2" min	2" min	2" min	2" min	2" min	2" min

monochrome emc spec 18mm pitch (cont'd)

	Amoco Heritage double cabinet	Amoco Heritage single cabinet	81" Plastiline SH	81" Plastiline DH	81" Plastiine DH2	81" Milwaukee SH	81" Milwaukee DH	81" Milwaukee DH2
emc sku #	BSC-AH-3P-CAB-DF-M	BSC-AH-3P-CAB-SF-M	CBPY4604-M	CBPY4605-M	CBPY4606-M	CPBY4607-M	CPBY4608-M	CPBY4609-M
pixel matrix	32x90	32x90	16x90	32x90	64x90	16x90	32x90	64x90
display dim	22.8" x 64.1"	22.8" x 64.1"	11.4" x 64.1"	22.8" x 64.1"	45.6" x 64.1"	11.4" x 64.1"	22.8" x 64.1"	45.6" x 64.1"
max lines text	4	4	2	4	8	2	4	8
min char ht	4.5" char	4.5" char	4.5" char	4.5" char	4.5" char	4.5" char	4.5" char	4.5" char
max amp req	8A	8A	4.5A	7.5A	15A	4.5A	7.5A	15A
avg amp req	2.5A	2.5A	1.5A	2.5A	5A	1.5A	2.5A	5A
perimeter contrast	2" min	2" min	2" min	2" min	2" min	2" min	2" min	2" min



BLAIR Color EMC specifications



color tile emc spec
22mm pitch

	64" 1x	64" 2x	81" 1x	81" 2x	81" 3x	8' BP heritage SH	8' BP heritage DH	6' BP heritage SH	6' BP heritage DH
emc sku #	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
pixel matrix	13x60	26x60	13x75	26x75	39x75	13x90	39x90	13x75	26x75
display dim* <small>*includes contrast border</small>	15.4" x 55.3"	26.8" x 55.3"	15.4" x 68.1"	26.8" x 68.1"	38.2" x 68.1"	15.4" x 80.9"	38.2" x 80.9"	15.4" x 68.1"	26.8" x 68.1"
max lines text	1	3	1	3	4	1	4	1	3
min char ht	<=11" char	7" char	<=11" char	7" char	7" char	<=11" char	7" char	<=11" char	7" char
max amp req <small>120/240V</small>	6A/3A	12A/6A	9A/4.5A	15A/7.5A	24A/12A	9A/4.5A	27A/13.5A	9A/4.5A	15A/7.5A
avg amp req <small>120/240V</small>	2A/1A	4A/2A	3A/1.5A	5A/2.5A	6A/3A	3A/1.5A	9A/4.5A	3A/1.5A	5A/2.5A
perimeter contrast	2" min	2" min	2" min	2" min	2" min	2" min	2" min	2" min	2" min

color tile emc spec
22mm pitch (cont'd)

	Amoco Heritage double cabinet	Amoco Heritage single cabinet	81" Plastiline SH	81" Plastiline DH	81" Plastiline DH2	81" Milwaukee SH	81" Milwaukee DH	81" Milwaukee DH2
emc sku #	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
pixel matrix	26x75	26x75	13x75	26x75	52x75	13x75	26x75	52x75
display dim* <small>*includes contrast border</small>	26.8" x 75"	26.8" x 75"	15.4" x 68.1"	26.8" x 68.1"	49.6" x 68.1"	15.4" x 68.1"	26.8" x 68.1"	49.6" x 68.1"
max lines text	3	3	1	3	6	1	3	6
min char ht	7" char	7" char	<=11" char	7" char	7" char	<=11" char	7" char	7" char
max amp req <small>120/240V</small>	15A/7.5A	15A/7.5A	15A/7.5A	15A/7.5A	30A/15A	15A/7.5A	15A/7.5A	30A/15A
avg amp req <small>120/240V</small>	5A/2.5A	5A/2.5A	5A/2.5A	5A/2.5A	10A/5A	5A/2.5A	5A/2.5A	10A/5A
perimeter contrast	2" min	2" min	2" min	2" min	2" min	2" min	2" min	2" min

Color EMC specifications



color cabinet emc spec
20mm pitch

	64" 1x	64" 2x	81" 1x	81" 2x	81" 3x	8' BP heritage SH	8' BP heritage DH	6' BP heritage SH	6' BP heritage DH
emc sku #	33-99-02	33-99-05	33-99-03	33-99-06	33-99-09	33-99-04	33-99-08	33-99-03	33-99-06
pixel matrix	16x64	32x64	16x80	32x80	40x80	16x96	48x96	16x80	32x80
display dim	12.6" x 50.4"	25.2" x 50.4"	12.6" x 63"	25.2" x 63"	31.5" x 63"	12.6" x 75.6"	37.8" x 75.6"	12.6" x 63"	25.2" x 63"
max lines text	2	4	2	4	5	2	6	2	4
min char ht	4.5" char	4.5" char	4.5" char	4.5" char	4.5" char	4.5" char	4.5" char	4.5" char	4.5" char
max amp req	3.75A	8.75A	5A	11.25A	16.25A	6.25A	18.75A	5A	10A
avg amp req	1A	2A	1.5A	2.5A	4A	1.5A	5A	1.5A	2.5A
perimeter contrast	2" min	2" min	2" min	2" min	2" min	2" min	2" min	2" min	2" min

color cabinet emc spec
20mm pitch (cont'd)

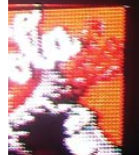
	Amoco Heritage double cabinet	Amoco Heritage single cabinet	81" Plastiline SH	81" Plastiline DH	81" Plastiline DH2	81" Milwaukee SH	81" Milwaukee DH	81" Milwaukee DH2
emc sku #	33-99-07	33-99-10	order mono (CBPY4604)	33-99-06	33-99-12	order mono (CBPY4607)	33-99-06	33-99-12
pixel matrix	32x80	32x80	n/a	32x80	56x80	n/a	32x80	56x80
display dim	25.2" x 63"	25.2" x 63"	n/a	25.2" x 63"	44.1" x 63"	n/a	25.2" x 63"	44.1" x 63"
max lines text	4	4	n/a	4	7	n/a	4	7
min char ht	4.5" char	4.5" char	n/a	4.5" char	4.5" char	n/a	4.5" char	4.5" char
max amp req	10A	10A	n/a	10A	18.75A	n/a	10A	18.75A
avg amp req	2.5A	2.5A	n/a	2.5A	5A	n/a	2.5A	5A
perimeter contrast	2" min	2" min	n/a	2" min	2" min	n/a	2" min	2" min



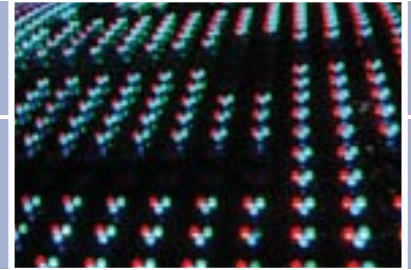
Plaza

265°
269°

vigorate



Electronic Price Control Unit



SAFE - safer than manual changes (UL Approved)

VISIBLE - wide viewing angle, high LED counts, super bright 4230 mcd median LED intensity (green)

RGB LEDs - long 70k+ hr LED life

COMPATIBLE - EPCU's and EMCM's work with most POS systems

COMMUNICATION - long and short range radio and modem

DIMMING - adjustable light levels via software or manual override

INSTALLATION NETWORK - nation wide certified installer network equipped with spare parts kits

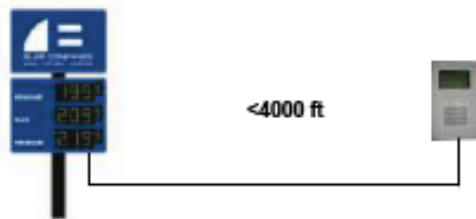
WARRANTY - 3-year parts warranty ; 3-year labor if installed by manufacturer or certified installer

epcu colors and sizes

	green part #	red part #	amber part #	blue part #	white part #
6" fully programmable	33-13-00	33-14-00	33-11-98	33-11-96	33-11-95
3" small 9	33-13-03	33-14-04	33-14-26	33-14-30	33-14-40
6" 9/10	33-13-02	33-14-03	33-14-20	33-14-31	33-14-41
6" 9	33-13-01	33-14-01	33-14-27	33-14-32	33-14-42
9"	33-00-05	33-11-01	33-11-99	33-12-06	33-11-09
9" 9/10	33-13-04	33-14-05	33-14-21	33-14-33	33-14-43
12"	33-00-09	33-11-11	33-12-01	33-12-05	33-11-07
12" 9/10	33-13-05	33-14-06	33-14-22	33-14-34	33-14-44
12" 9	33-00-30	33-00-31	33-00-32	33-00-33	33-00-34
15"	33-00-15	33-11-05	33-14-28	33-14-35	33-14-45
15" 9/10	33-13-08	33-14-09	33-14-23	33-14-36	33-14-46
18"	33-00-10	33-11-12	33-12-02	33-12-07	33-11-10
18" 9/10	33-13-06	33-14-07	33-14-24	33-14-37	33-14-47
24"	33-00-11	33-11-13	33-12-03	33-12-08	33-11-08
24" 9/10	33-13-07	33-14-08	33-14-25	33-14-38	33-14-48
decimal 12 LED	33-13-65	33-13-61	33-13-63	33-13-67	33-13-69
decimal 4 LED	33-13-64	33-13-60	22-13-62	33-13-66	33-13-68
30" top	33-12-14	33-00-13	33-11-14	33-11-16	33-12-16
30" bottom	33-12-15	33-00-14	33-11-15	33-11-17	33-12-17

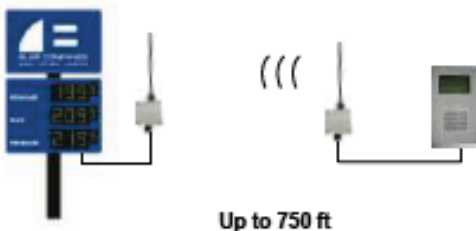
EPCU control options

Electronic displays can be controlled in a variety of ways. Blair EPCU/EMCs are configured to accept all control methods utilizing the same data-entry terminal. Control methods can be changed in the field as necessary



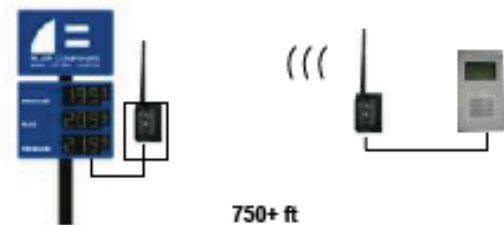
DIRECT CABLE COMMUNICATION

- communicate from operator terminal inside store
- kit includes terminal with display and all cables to connect to site supplied CAT5 cable
- most reliable, guaranteed connection
- range up to 4000ft



STANDARD RADIO COMMUNICATION

- communicate from operator terminal inside store
- kit includes terminal with display, cables, radio components and enclosures
- range up to 750ft line-of-sight



LONG RANGE RADIO COMMUNICATION

- communicate from operator terminal inside store
- kit includes terminal with display, cables, radio components and enclosures
- range up to 750ft line-of-sight
- allows communication with multiple signs from single terminal

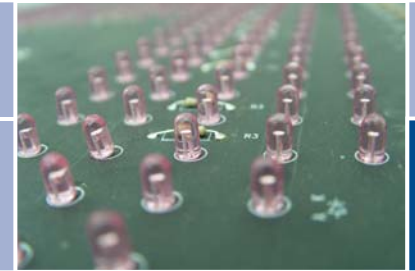


ECONOMY OPERATOR TERMINAL

- simple 4-button handheld remote
- kit includes remote and receiver, components at sign
- price change and settings displayed at sign
- range up to 300ft line-of-sight



Energy Efficiency



Many sites utilize Time Clocks, Light Sensors, or Energy Management Systems to turn power off to their sign during the day to save energy and extend lamp life. Because EPCU/EMCs need power at all times, these energy management devices must be deactivated if the sign has only one power circuit.

To promote energy efficiency, Blair EPCU/EMCs come equipped with time clocks coupled to a 120 volt power switch. This device automatically turns primary power to the sign off during the day, while turning the LEDs up to maximum brightness. This reduces the need for an additional power circuit at the sign and ensures optimal readability, life and energy efficiency from your LEDs and the entire sign.

In the evening, LEDs dim to 50% as fluorescent lights turn on. This allows the sign to run on an existing circuit.

CANOPY BULLNOSE LED & INSTALLATION



NATIONAL PERMITTING AND INSTALLATION



Plaza

265⁹
269⁹

vigorate



BLAIR Lighting & Logistics



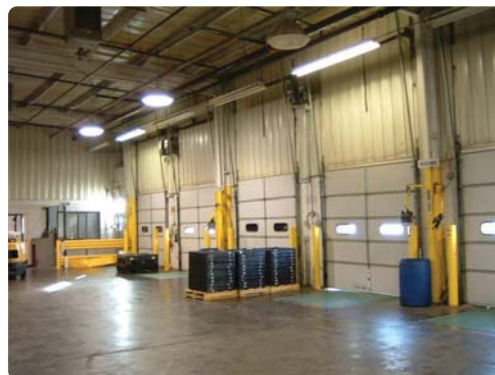
Third Party Logistics provider (3PL). Blair Companies has spent decades consolidating and distributing light fixtures nationwide for large chains like Regis and GNC. Blair's expertise in project management, inventory control, manufacturing and distribution, coupled with our unbeatable geographic location, makes us the ideal choice for your 3PL needs.

Consider the advantages: Over 2 million square feet available in Central Pennsylvania on Interstate 99 Located within 500 miles of over 50% of the North American population.

OUR EXPERTISE INCLUDES

- Warehousing
- Secure Storage
- Assembly
- Ordering Support
- Fulfillment
- EDI / Web Interface
- LTL and Truckload
- Air / Ocean
- Consolidation / Distribution
- Replenishment Programs
- Pick and Pack
- Product Selection Assistance
- Quality Control Inspection
- National Direct-to-Store Delivery
- Rail and Bi-modal

Blair Lighting is a distributor for hundreds of different lamp and lighting manufacturers. We provide a complete range of commercial, specialty, and other hard to find lighting products at competitive pricing. Blair's technical expertise and OEM relationships add real value to lighting programs nationwide.





BLAIR COMPANIES
ARCHITECTURAL IMAGING
SIGNS • FIXTURES • LOGISTICS

Blair Companies is comprised of five synergistic business divisions:
Signs • Fixtures and Millwork • Logistics • Architectural Imaging • Composites
As a full-service company, Blair has set new standards for high-service,
low-cost image and construction program management.
Please contact us at 814.949.8287 for additional information.

5107 Kissell Avenue • Altoona PA 16601 • p: 814.949.8287 • f: 814.949.8293