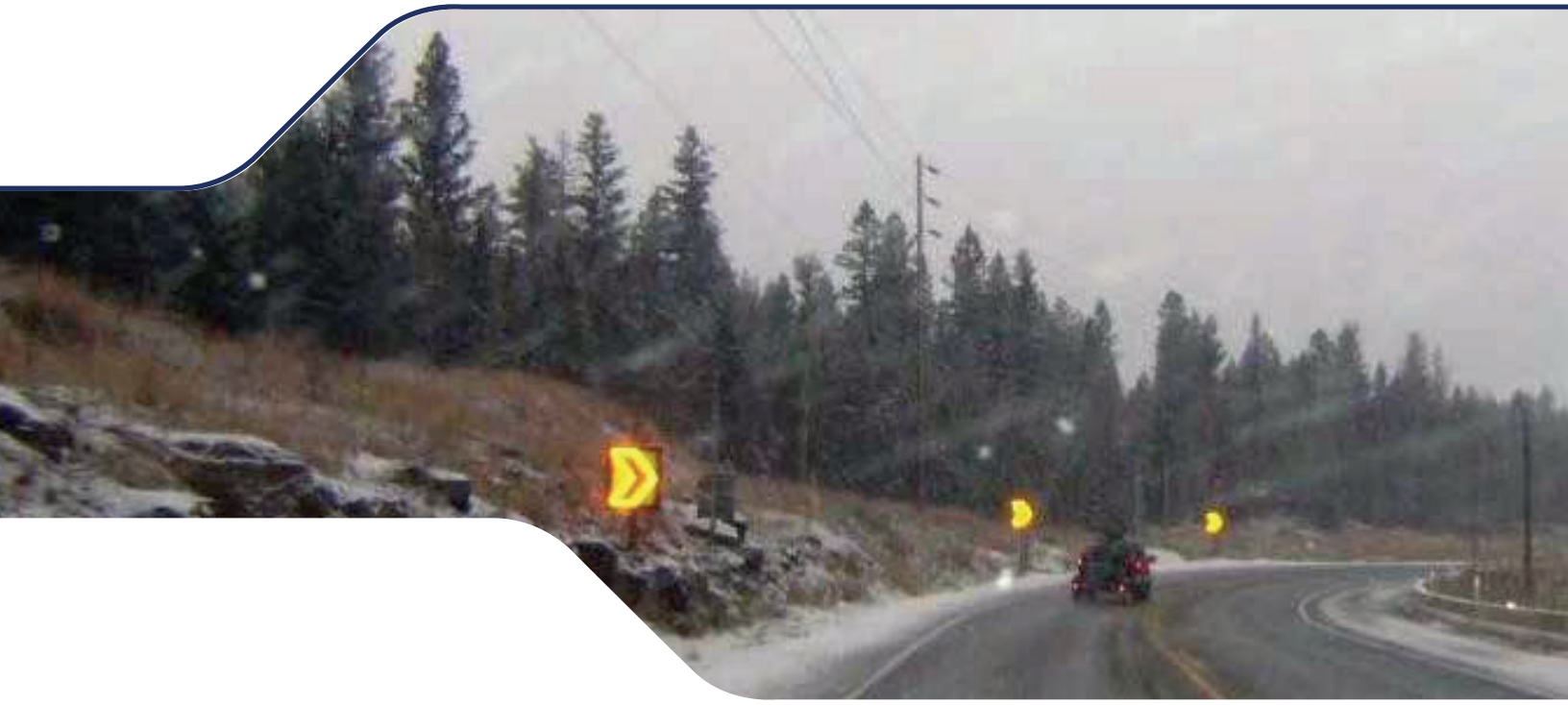
SBC9/109 CMRU Sequential LED Chevron Sign Series

Combining LED enhanced chevrons with radar technology to provide sequential directional aid to raise driver awareness of unsafe approach speeds at hazardous curve locations



UNIPART DORMAN

INTELLIGENT ENGINEERING, UNIQUE PEOPLE, WORKING TOGETHER

Staying Ahead of the Curve

The CMRU Chevron Master Radar Unit was developed at the request of British Columbia Ministry of Transport as an optional upgrade feature to the highly successful SBC Steady Burn LED enhanced chevron series. The CMRU is installed alongside the lead chevron and tracks vehicle approach speeds and when unsafe speed is detected it triggers a high intensity sequential pulse to travel along the chevron chain providing continual delineation of the curve. The chevrons remain steady burn at all other times to provide all drivers with enhanced visibility of the curve in all types of light and weather conditions.

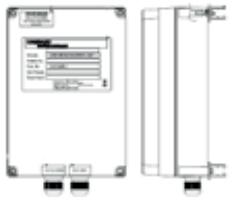
The first installation of the CMRU sequential SBC chevrons took place in the fall of 2015 on Highway 97at Monte Lake, Monte Creek, BC. The CMRU has been designed so that it may also be supplied as an upgrade kit allowing existing steady burn chevron installation to be converted to sequential if required. The range of LED enhanced chevrons have fast established themselves as an important tool in enhancing road curve safety. A full range of SBC chevrons models are available in 45 x 60 cm to 60 x 75cm sizes ensuring the sign is appropriate for the road speed.

Operation

The CMRU is installed alongside the lead chevron and can be configured locally over bluetooth wireless link from custom PC based windows software. Operator can adjust radar range, trigger speed, intensity and speed of sequential pulse to optimize installation. The SBC chevrons remain steady burn until sequential continual delineation pulse is activated by approach vehicle travelling above preset trigger speed.

Please refer to the user guide provided before installing and operating your SBC CMRU equipment.

Technical Data

Model & Part code References	**Chevron Master Radar Unit** 110V Part code: D26CMRU -110VAC 24VDC Part Code: D26CMRU - 24VDC **Steady Burn Chevrons** SBC9: 110V Part code: CVWa-9-S--AAP 24VDC Part code: CVWa-9-S--BAP SBC109: 110V Part code: CVWa-109-S--ABP 24VDC Part code: CVWa-109-S--BBP 
Display Technology	ITE color tested high intensity amber LED display technology combined with fluorescent reflective sign face, clearly visible in all daylight conditions. Auto Luminosity control to suit ambient light conditions.
Display Format	Black chevron on fluorescent yellow reflective background. Two rows of 5mm diameter high intensity amber LEDs on a 17mm pitch are fitted protruding through reflective material face along the border of the chevron. Reflective background available in (HIP) High Intensity Prismatic or (DG) Diamond Grade.
Vehicle Detection	FCC compliant K band radar microwave vehicle detector integrated into plastic housing , mounted separately on pole above lead chevron, factory preset range of 600 feet / 190Metres adjustable up to 1200 feet/380Metres . Speed range of 8 to 240kmh. 12 degree beam accuracy +/-1 unit of measure. Simple set up.
Model Dimensions (Approx)	CMRU: External dims 255mm High x 180mm wide x 100mm deep Chevrons: SBC9: (Wa-9 45 x 60cm diagram size) External dims 730mm High x 570mm wide x 135mm deep SBC109: Wa-109 60 x 75cm diagram size) External dims 912mm High x 770mm wide x 135mm deep
Model Weights	CMRU: 1.2Kg approx Chevrons: SBC9 15Kg SBC109 23.5Kg approx
Power Supply	Units are available in 110VAc and 24V DC models Nominal current: Day time 700mA; Night time 200mA per individual chevron sign.
Sign Configuration and Operation	The CMRU is programmed using custom windows based software over Bluetooth™ wireless connection from client supplied Laptop or Netbook. CMRU configurable parameters include, trigger speed, radar range, chevron intensity levels , sequential pulse speed and traffic speed data logs. The CMRU is connected to the lead chevron over a 4 core screened cable , and the lead chevron in turn is connected to remaining chevrons in chain over a 2 core screened data cable link. The chevrons operate in steady burn mode at all times except when the CMRU detects an approach vehicle speed above the trigger speed, it then sends a high intensity sequential pulse along the chain of steady burn chevrons, providing an enhanced directional warning aid to the targeted driver. The display LED's will vary between day time (maximum) intensity and night time (minimum) intensity with three intermediate stages. The time to switch from day time to night time intensity (or vice versa) is approximately one minute.
Case	CMRU: Polycarboinate IP66 electronic enclosure Chevrons: Purpose fabricated lightweight aluminium vandal resistant NEMA Type 3S ingress rated enclosure Matt Black front face Aircraft Grey rear powder coat finish or color to suit, 60 micron min thickness. ¼" (5mm) anti reflective Polycarbonate window
Operating Temp Range	-34 to 74°C, 95% non condensing
Mechanical Interface	CMRU: The CMRU is fitted with 2 off signfix U channels and2 off SX0220 channel banding interface clamps allowing band mounting to a variety of support posts. Chevrons: Option 1: Signs equipped with sign fix U channel supports on rear and SX0220 channel banding interface brackets to allow ¾" band mounting to a variety of posts. Option 2: Mounted using Greenlite Clamps GEL 110 and 191 using mounting holes top and bottom of case. This mounting option allows data and power cables to be run inside bracket and terminated internally within sign. The chevron is to be designed so that it can be mounted in a right hand or left hand orientation. In both of these arrangements the unit is to be supplied with a drain hole plug, the drain hole plug must be fitted to the top of the case.
Electrical Interface	CMRU: Power is provided to CMRU via bottom mounted gland and internal screw termination. Chevrons: Each Chevron is equipped with plug and panel rear mounted sockets for data and power, facilitating plug and play connection. Dust Caps are supplied to protect any unused sockets. Internal connections are screw terminal.

About Unipart

The Unipart Group is a leading UK manufacturer, full service logistics provider and consultant in operational excellence. Operating across a range of market sectors, including automotive, manufacturing, mobile telecoms, rail, retail and technology, Unipart offers a breadth of services to a wide range of blue chip clients internationally.

Unipart Dorman
173 Main Street, Bath,
Ontario, K0H 1G0, Canada
Tel: +1 613 352 3458
Fax: +1 613 352 6845
email: dorman.enquiries@unipartdorman.com
www.unipartdorman.com

UNIPART RAIL

Visit **www.unipartrail.com** for details of our Worldwide Regional Offices