

Doran Universal Exterior Light Monitor UBM-00 Instructions for Installation and Use

Monitor and Light Installation

The Doran UBM-00 is a fully electronic Exterior Light Monitor designed for use with incandescent, halogen, Light Emitting Diode (LED) constant burn and strobing lights. In order to work with the large differences in current draw between the incandescent versus the LED lights, it is necessary to “calibrate” the monitor for the lights installed.

Wire the unit with no more than two (2) lights in parallel and both lights must be of same type and manufacturer. Typically, the two (2) 7” stop/tail lights should be wired in parallel and the two (2) 4” stop/tail lights should be wired in parallel.

Sometimes buses are wired with a 7” and 4” stop/tail in parallel for the right and left sides. **If wired in this manner, the monitor may be unable to detect a failure of only one of the paralleled lights**, but it will detect a failure of both.

Calibrate unit after installation and after each lamp replacement.

Calibration

To self calibrate the monitor, ALL monitored lights must be in working order.

For faster calibration, the operator may turn on as many exterior lights as possible at the start of the procedure. The operator will be required to activate these lights during the calibration procedure. Operator may begin with the tail/head lights on, hazard lights (for the turn signals), and the amber warning lights flashing (door closed).

1. Turn on ignition and start engine – Engine is running to assure proper voltage for operation and calibration. The GREEN LED voltage indicator at the bottom center of the monitor MUST BE ILLUMINATED indicating the voltage is within limits for proper operation. Before beginning calibration, allow time for the voltage to stabilize to its normal running voltage. After cranking the engine the battery voltage may be lower than normal. Allow time for the battery to recharge.
2. When the ignition is turned on, all LED’s on monitor will be enabled for a few seconds to verify that all LED’s are working.
3. To enter the calibration mode, press and hold the calibrate button through the face plate hole for longer than two (2) seconds. This button/hole may be found located at the top between the warning lights on the remote monitor. The first light to calibrate will begin flashing when the unit enters calibration mode. You may use an object such as a small Allen wrench or paper clip to activate the switch.
4. The unit will begin calibrating each light in a sequence. Each light tested must be active at the time of the calibration. As each light is calibrated, the matching

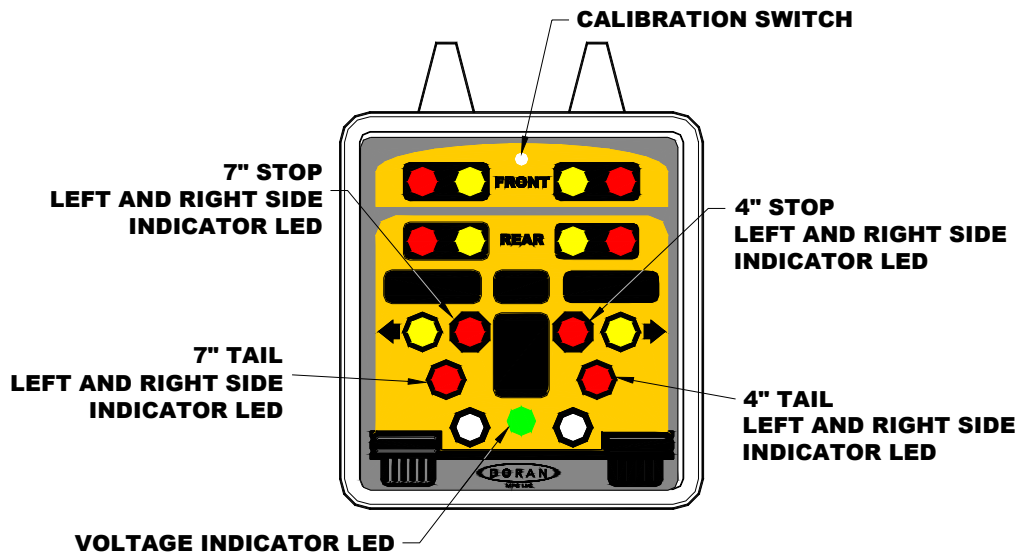
monitor LED will flash. Operator shall activate (if not active) the bus light corresponding to the flashing LED. The sequence is as follows:

- a. Left turn signal – switch on
 - b. Right turn signal – switch on
 - c. Stop lights (right and left side 7” will flash) – press brake pedal
 - d. Tail light (right and left side 4” will flash) – switch on
 - e. Backup lights – press brake/clutch and engage reverse
 - f. Each Amber warning light – switch on with door closed
 - g. Each Red warning light – open door
5. Calibrated lights are indicated by the corresponding LED staying illuminated on the monitor. The unit continues to loop through the sequence flashing the uncalibrated lights until all lights are calibrated.
 6. When all LED’s are illuminated, turn off ignition to complete the calibration.

Operation

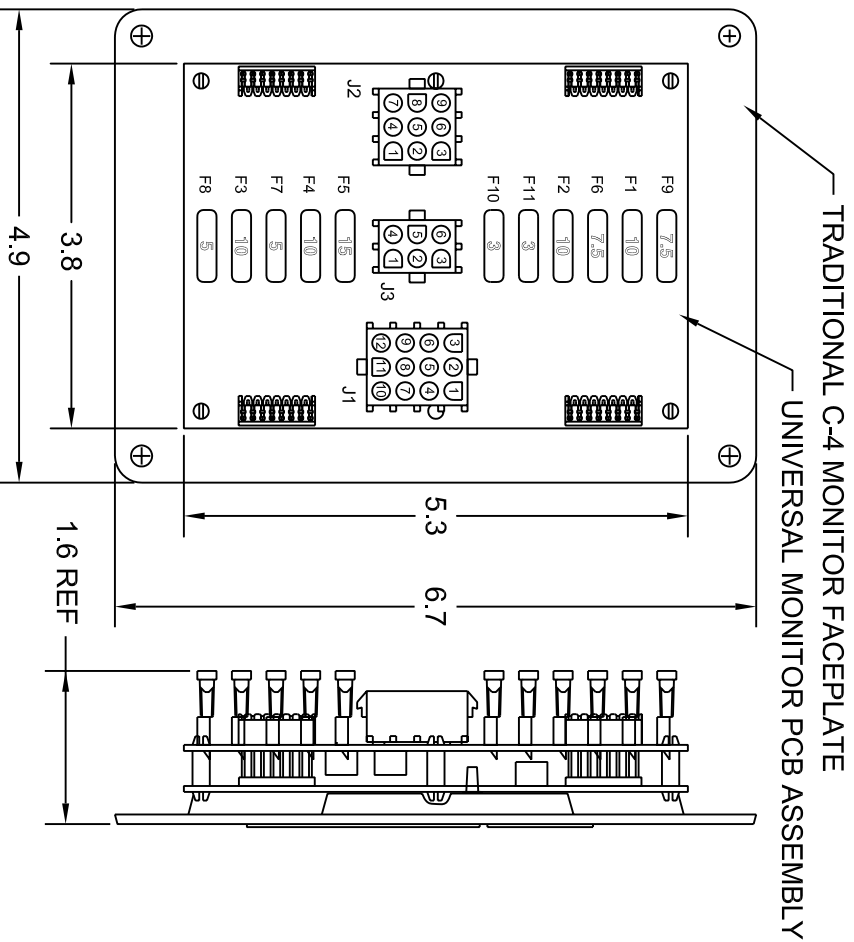
The GREEN LED at the bottom center of the monitor MUST BE ILLUMINATED indicating the voltage is within limits for proper operation. With the GREEN LED on, a lighted LED on the monitor display indicates the corresponding bus lamp/light circuit is drawing current. If the monitor LED does not illuminate when the corresponding bus light should be active, this/these bus lights should be checked for proper operation.

See the illustration for the definition of the brake/stop and tail light indicators.



Fuse Table

Fuse	Rating	Circuit	Fuse	Rating	Circuit
F1	15 A	Red Warn – Left Input	F7	5 A	Left Directional Input
F2	15 A	Amber Warn – Left Input	F8	5 A	Right Directional Input
F3	15 A	Red Warn – Right Input	F9	7.5 A	4” Stop Out
F4	15 A	Amber Warn – Right Input	F10	3 A	7” Tail Out
F5	15 A	Backup – Input	F11	3 A	4” Tail Out
F6	7.5 A	7” Stop -- Out			



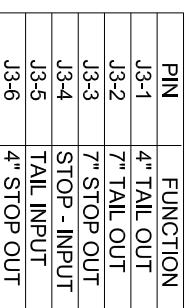
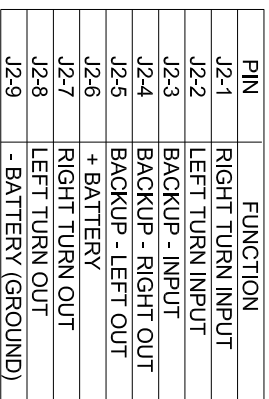
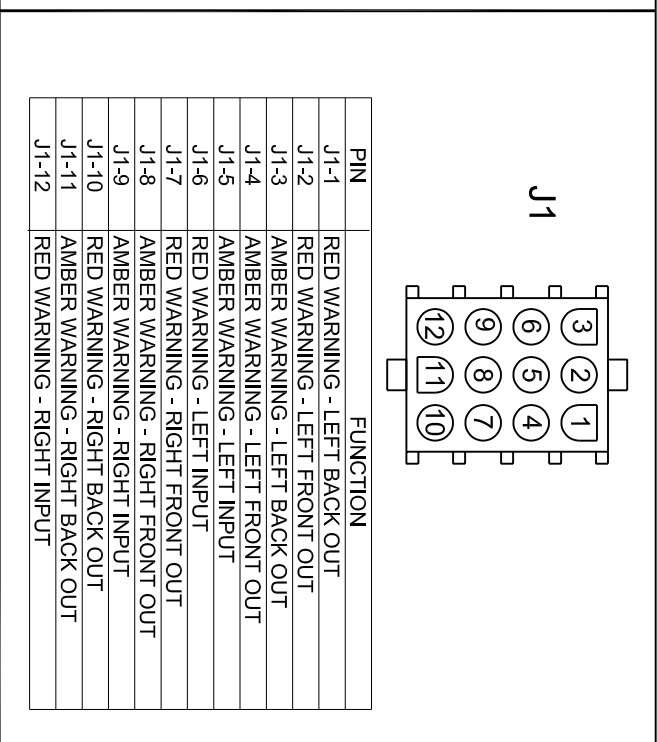
TRADITIONAL C-4 MONITOR FACEPLATE

UNIVERSAL MONITOR PCB ASSEMBLY

NOTE: THE UBMR-00'S PINOUT IS EQUIVALENT TO THE UBMM-00. THE UBMR-00 IS ASSEMBLED INTO A FLANGE MOUNT ENCLOSURE BOX (NOT SHOWN).

FUSE ALLOCATION:

FUSE	RATING	CIRCUIT
F1	15 A	RED WARNING - LEFT INPUT
F2	15 A	AMBER WARNING - LEFT INPUT
F3	15 A	RED WARNING - RIGHT INPUT
F4	15 A	AMBER WARNING - RIGHT INPUT
F5	15 A	BACKUP - INPUT
F6	7.5A	7" STOP - OUT
F7	5 A	LEFT DIRECTIONAL INPUT
F8	5 A	RIGHT DIRECTIONAL INPUT
F9	7.5A	4" STOP OUT
F10	3 A	7" TAIL OUT
F11	3 A	4" TAIL OUT

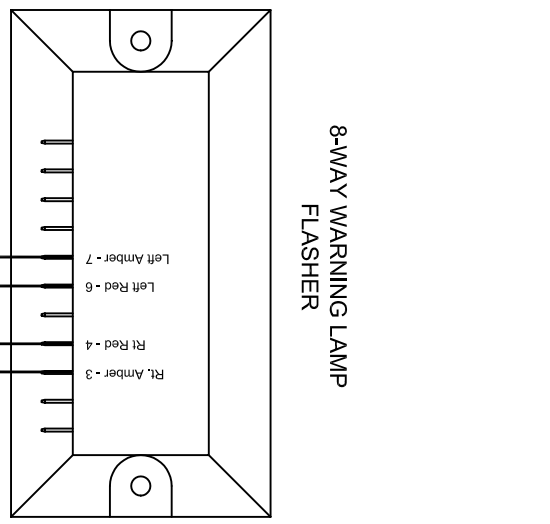
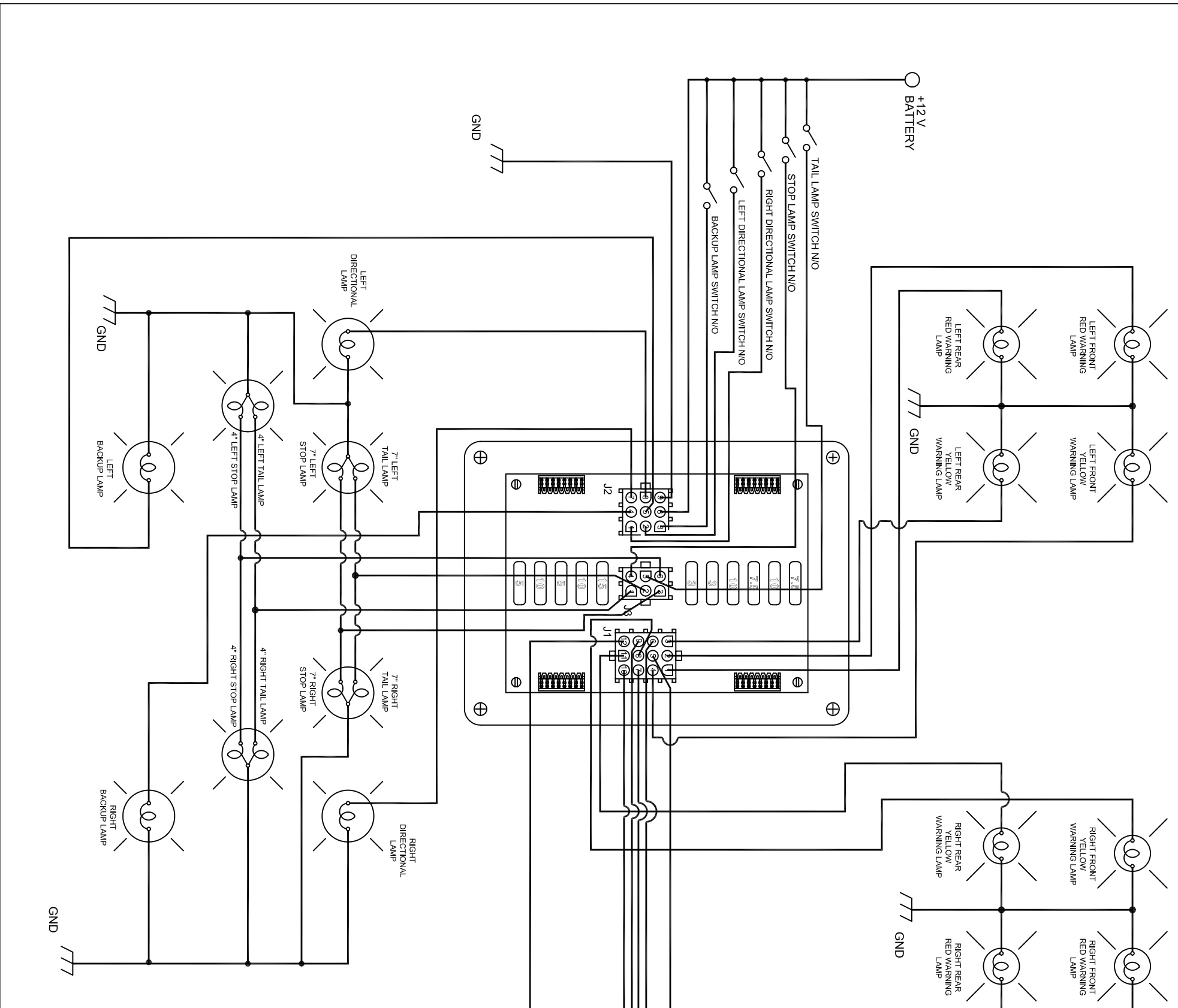


- 1 Changed F1,2,3 & 4 to 15A, 9k
- 2 Change part name to UBMM-00
- 3 Added part name UBMR-00

DORAN MANUFACTURING CO.
CINCINNATI, OHIO 45225

PART NAME MODEL UBMM-00 & UBMR-00 PINOUT
TOLERANCES DECIMALS: .XXX +OR-.005, .XX +OR-.015
FRACTIONS: +OR-.1/32, ANGLES: +OR-.1/2 DEGREE

DRAWN JPR DATE 8/19/03 DRAWING NO. 7255 REV. 3
APPR DATE SCALE



NOTE: FOR PINOUT, PLEASE REFER TO DORAN DRAWING 7255

DORAN MANUFACTURING CO.		CINCINNATI, OHIO 45225	
PART NAME		UNIVERSAL MONITOR SCHEMATIC	
TOLERANCES		DECIMALS .XXX +OR-.005, .XX +OR-.015 FRACTIONS +OR- 1/32, ANGLES +OR- 1/2 DEGREE	
CUSTOMER		SCALE	
DRAWN	JPR	DATE	9/22/03
APPR		DATE	
DRAWING NO.		7265	
REV.		0	