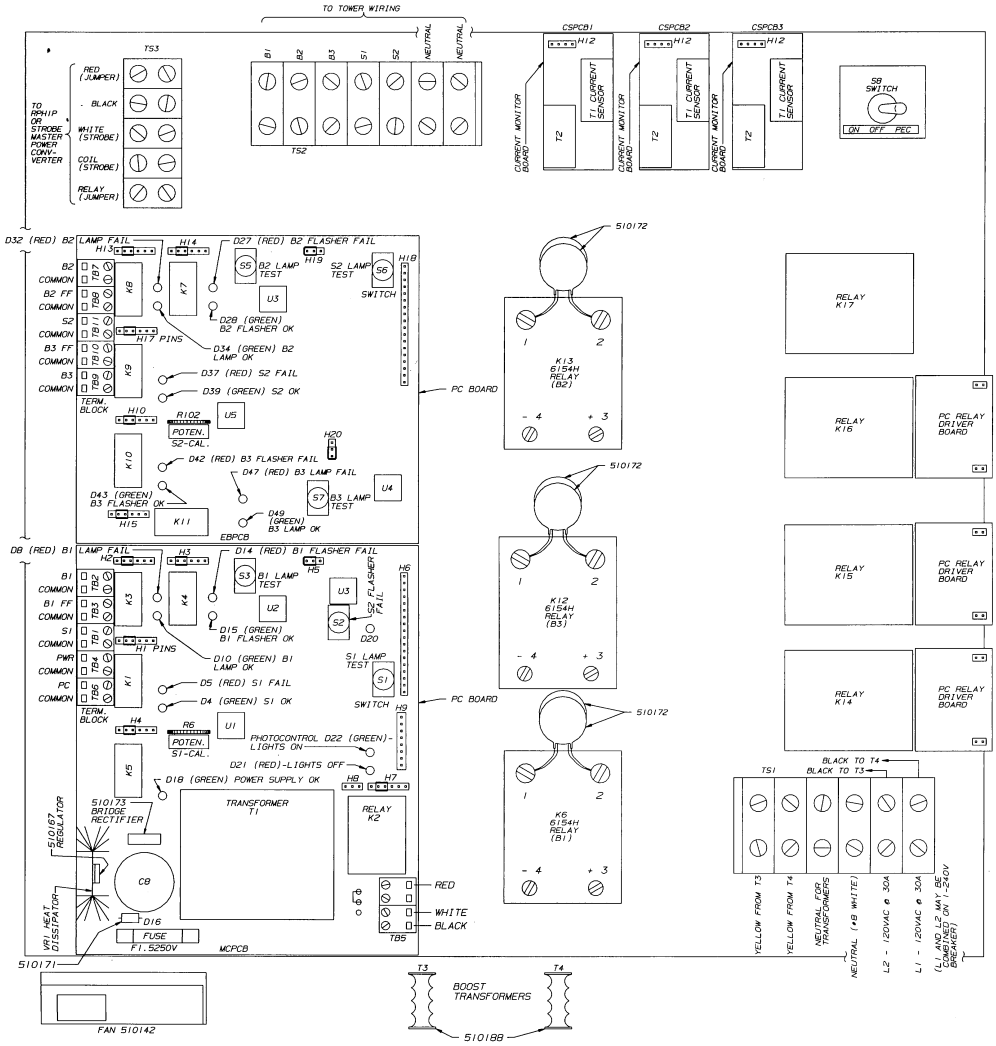

MODEL ULC700 RED LIGHT CONTROLLER INSTALLATION DETAILS & SPECIFICATIONS

THE ULC700 IS A UNIVERSAL RED LIGHT CONTROL SUITABLE FOR OPERATION AS A RED ONLY CONTROLLER, OR IN CONJUNCTION WITH A STROBE FOR DUAL TOWER LIGHTING ON TOWERS FROM 351' TO 700'AGL. FEATURES AND SPECIFICATIONS ARE AS FOLLOWS.

1) ALL ALARM OUTPUTS MAY BE CONFIGURED AS N/O OR N/C BY SIMPLY MOVING A FIELD SELECTABLE JUMPER.
2) ALL ALARM COMMONS ARE AVAILABLE TO THE USER FOR USE WITH DISCRETE ALARM CHANNELS OR, ALL ALARMS MAY BE DAISY-CHAINED TO MONITOR ALL FUNCTIONS WITH ONE(1) ALARM CHANNEL (N/C, N/O).
3) TEST SWITCHES FACILITATE TESTING OF EACH ALARM, AND RED-GREEN LIGHT EMMITING DIODES PROVIDE FOR INSTANT VISUAL INDICATION OF ALL ALARM FUNCTIONS. NO NEED TO VERIFY EACH ALARM WITH EXTERNAL TEST EQUIPMENT.
4) TRANSIENT OVER VOLTAGE PROTECTION IS PROVIDED ON THE PC BOARD, SOLID STATE RELAY, AND PHOTOCONTROL, THROUGH OPTO-ISOLATION, TORRIOD TRANSFORMERS, MOV'S AND SOLID STATE SUPPRESSORS.
5) ALL ALARM FUNCTION ARE FAILSAFE AND PROVIDE FOR THE FOLLOWING.
   a. PHOTO-CONTROL ON-OFF VERIFICATION.
   b. AC/PCB POWER SUPPLY VERIFICATION.
   c. SIDELIGHT LAMP OUT INDICATION (FIELD ADJUSTABLE).
   d. FLASHER FAIL INDICATION WITH AUTOMATIC BEACON ON IF FLASHER CIRCUIT FAILS.
   e. FIELD PROGRAMMABLE BEACON LAMP OUT INDICATION TO INDICATE FAILURE OF 1 OF 2 BEACON LAMPS OR 2 OF 2 BEACON LAMPS, FOR EACH BEACON (3).
6) MANUAL OVERRIDE SWITCH FOR ON-OFF-PEC OPERATION TO FACILITATE SERVICING, TESTING, AND TROUBLE SHOOTING.
7) ALL ALARMS ARE PRESET TO CLOSE ON FAIL. REFER TO SERVICE MANUAL FOR PART NUMBERS, THEORY OF OPERATION AND LOCATION OF PROGRAMMING JUMPERS.

FIELD CALIBRATION PROCEDURE

SIDELIGHT ALARM CALIBRATION IS REQUIRED FOR PROPER OPERATION OF THE SIDELIGHT ALARM CIRCUIT. NOTE: RED LEDS INDICATE ALARM CONDITIONS, GREEN LEDS INDICATE SYSTEM OK.

1) FLIP S9 TO THE ON POSITION (S1, 2, 3, 5, 6, & 7 DOWN).
2) D22 SHOULD NOW BE ON TO INDICATE TOWER LIGHTS ARE ON AND D20 SHOULD BE FLASHING.
3) FOR THE UPPER SIDELIGHTS, ROTATE R6 CW AS VIEWED FROM THE TOP UNTIL RED LED D5 COMES ON. (THE SIDE-LIGHT CIRCUIT MUST HAVE 2-QB116W'S TO CLEAR THE ALARM, AND WILL WORK WITH UP TO 6-QB116W'S.) SLOWLY ROTATE R6 CCW UNTIL THE RED D5 GOES OFF AND THE GREEN D4 COMES ON. FLIP S1 UP TO SIMULATE A SIDELIGHT FAILURE AND WATCH FOR D4 TO TURN OFF & D5 TO COME ON. NOTE THE TIME DELAY FROM ON TO OFF & VICE VERSA. CONTINUE TO ROTATE R6 WHILE FLIPPING S1 UNTIL THE TIME DELAY APPEARS EQUAL FROM ON TO OFF & VICE VERSA. RETURN S1 TO THE DOWN POSITION. REPEAT THE ABOVE PROCEDURE FOR THE LOWER SIDELIGHTS USING R102 AND S6, D37 & D39.

FIELD TEST PROCEDURE

SIDELIGHT LAMP OUT

1) TEST SIDELIGHT CIRCUIT PER ABOVE CALIBRATION PROCEDURE.

BEACON LAMP OUT (B1)

1) FLIP S9 TO THE ON POSITION.
2) WITH S3 DOWN AND 2-GOOD B620W LAMPS IN THE BEACON, THE GREEN LED D10 SHOULD BE ON.
3) FLIP S3 UP TO SIMULATE A BAD BEACON LAMP.
4) AFTER A SHORT DELAY THE GREEN LED D10 SHOULD GO OFF AND THE RED LED D8 SHOULD COME ON INDICATING AN ALARM CONDITION.
5) FLIP S3 DOWN, AND THE GREEN LED D10 SHOULD COME BACK ON AND THE RED LED D8 SHOULD GO OFF. REPEAT THE ABOVE PROCEDURE FOR B2 & B3 USING S5, D32, D34 FOR B2 AND S7, D47 & D49 FOR B3.

TEST COMPLETE.

FLASHER FAIL TEST

1) S9 IS STILL IN THE ON POSITION.
2) NOTE THAT D20 IS FLASHING AND WHEN S2 IS FLIPPED UP D20 GOES OUT. THE FLASHER HAS NOW STOPPED AND AFTER A SHORT DELAY THE GREEN LED D15 SHOULD GO OFF, AND THE RED LED D14 SHOULD COME ON INDICATING A FLASHER FAIL ALARM FOR B1. RELAY K14 WILL ALSO DE-ENERGIZE AND TURN THE B1 BEACON ON STEADY. ALSO NOTE THAT GREEN D28 AND D43 TURN OFF AND RED D27 AND D42 TURN ON INDICATING B2 AND B3 HAVE STOPPED FLASHING. K15 (FOR B2) AND K16 (FOR B3) WILL DE-ENERGIZE AND TURN BOTH BEACONS ON STEADY. TO RESET THE ALARM, FLIP S9 TO THE OFF POSITION AND FLIP S2 BACK TO THE DOWN POSITION. RETURN S9 TO THE PEC POSITION TO RESUME NORMAL OPERATION.

TEST COMPLETE.

ULC700	COMPLETE CONTROL
ULC700PNL	LESS HSG & PHOTOCONTROL
ULC700NEMA4	W/NEMA4 OUTDOOR HOUSING
ULC700LPC	LESS PHOTOCONTROL

No.	Revision Description	Date	Rev By	Chd By	Appd By
R1	ADDED BEAC. REFER. TO RELAYS & UPDATED DWG.	3/8/96	JHD	DC	TS

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ROHN

Scale: NONE	By	Date
Drawn:	JHD	6/26/95
Checked:	DC	6/23/95
App. Eng.:	TS	6/23/95
App. Sales:	JC	6/23/95

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