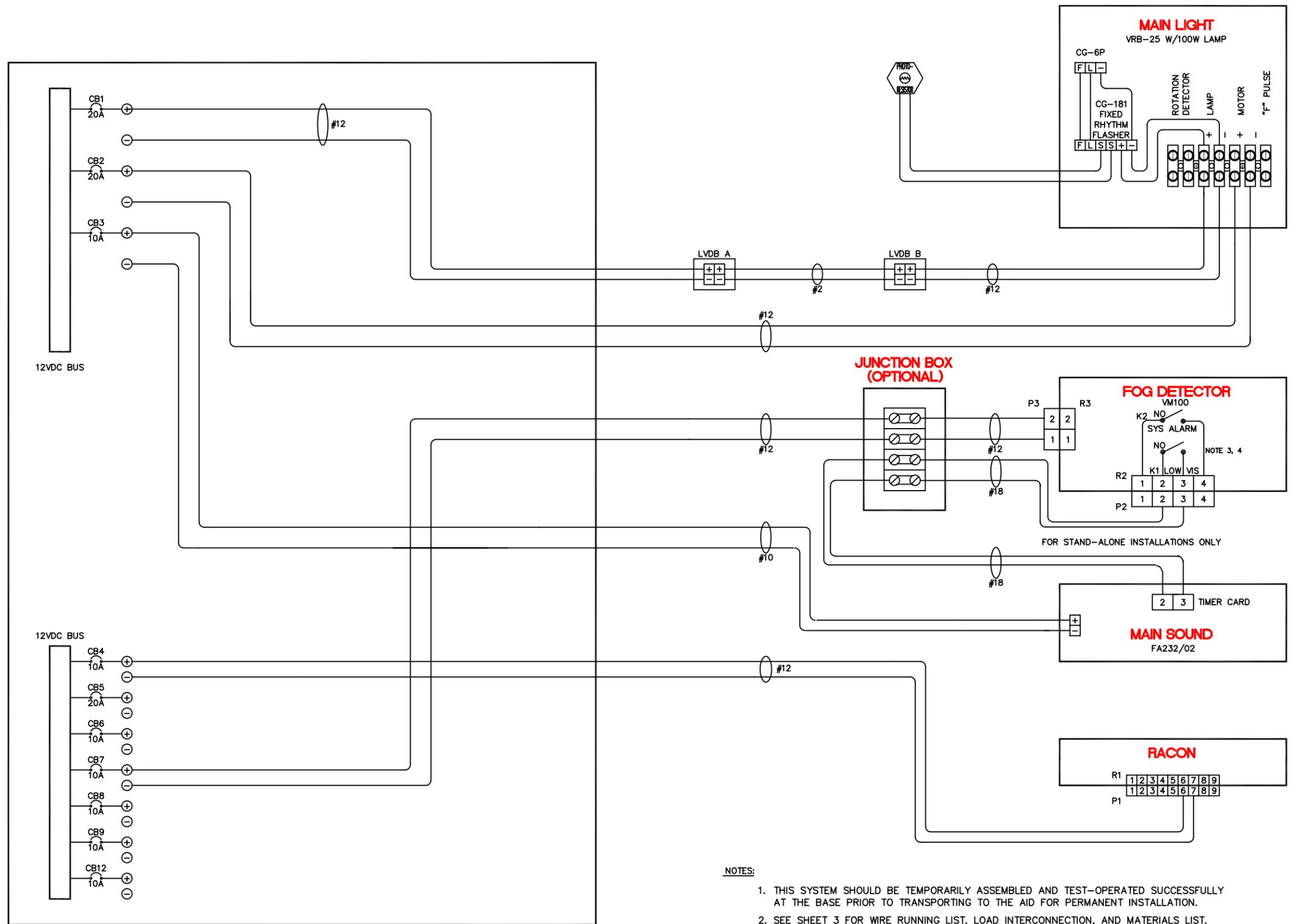


**NOTES:**

1. IF USING THE OPTIONAL BATTERY CHARGER, INSTALL A TEMPERATURE COMPENSATION SENSOR ON SIDE OF BATTERY.
2. THE LOAD SHEDDING POWER RELAY ON THE SDB (OR MAC) MUST BE DISABLED BY BY DISCONNECTING THE RELAY DRIVER FROM THE RELAY OPERATING COIL. SEE DETAIL ON SHEET 3.
3. SEE SHEET 2 FOR THE LOAD CONNECTION DETAILS AND SHEET 3 FOR THE WIRE RUNNING AND MATERIALS LISTS.
4. THIS SYSTEM SHOULD BE TEMPORARILY ASSEMBLED AND TEST-OPERATED SUCCESSFULLY AT THE BASE PRIOR TO TRANSPORTING TO THE AID FOR PERMANENT INSTALLATION.

REV.	DATE	APPR.	DESCRIPTION	BY
A	07/03	JTG	RELOCATE MAIN LIGHT MOTOR TO C/B #12. CORRECT THE R2 CONNECTIONS IN THE VM100, CHANGE VM100 P2/R2 CONNECTOR CONFIGURATION, ADD OPTIONAL JUNCTION BOX, CHANGE SHEET 2, NOTE 3 AND ADD NOTE 4.	KMD
DESIGNED:	STN	<b>U.S. COAST GUARD HEADQUARTERS</b> <b>CIVIL ENGINEERING</b> <b>STANDARD AID TO NAVIGATION</b> <b>COMMERCIAL POWERED CATEGORY V</b> <b>12VDC LIGHTHOUSE SYSTEM</b> <b>WITHOUT EMERGENCY SIGNALS</b>		
DRAWN:	STN			
TRACED:	JTG/KA			
CHECKED:	JTG/KA			
REVIEWED BY:	H. R. CLEVELAND G-SEC-2A			
REVIEWED BY:	R. J. LEGIER G-SEC-2	APPROVED:	CAPT J. A. RAUCH	DATE
REVIEWED BY:			CHIEF, OFFICE OF CIVIL ENGINEERING	2/10/98
UNLESS OTHERWISE SPECIFIED: ALL DIMENSIONS ARE IN INCHES. TOLERANCES: DIM. ANG.				
DRAWING NUMBER			REV.	
130429			A	
SCALE: NONE		SHEET 1 OF 3		

PLOTTING SCALE:



**SOLAR DISTRIBUTION BOX**

- NOTES:**
1. THIS SYSTEM SHOULD BE TEMPORARILY ASSEMBLED AND TEST-OPERATED SUCCESSFULLY AT THE BASE PRIOR TO TRANSPORTING TO THE AID FOR PERMANENT INSTALLATION.
  2. SEE SHEET 3 FOR WIRE RUNNING LIST, LOAD INTERCONNECTION, AND MATERIALS LIST.
  3. ENSURE THE JUMPER J1 ON THE INTERFACE CARD IS IN POSITION 3 FOR NORMALLY OPEN CONTACTS. SEE INTERFACE CARD DIAGRAM, TECH MANUAL, NOV 97. K1 RELAY IS SHOWN IN LOW VISIBILITY POSITION; SIGNAL SOUNDS WHEN K1 CONTACT IS OPEN. RELAY K2 CONTACT TERMINALS NOT USED.
  4. DO NOT UNDER ANY CIRCUMSTANCES SEND LOAD CURRENTS THROUGH VM100 K1 AND/OR K2 RELAY CONTACTS.

REV.	DATE	APPR.	DESCRIPTION	BY
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DESIGNED: STN			<b>U.S. COAST GUARD HEADQUARTERS</b> <b>CIVIL ENGINEERING</b> <b>STANDARD AID TO NAVIGATION</b> <b>COMMERCIAL POWERED CATEGORY V</b> <b>12VDC LIGHTHOUSE SYSTEM</b> <b>WITHOUT EMERGENCY SIGNALS</b>	
DRAWN: STN				
TRACED:				
CHECKED: JTG/RA				
REVIEWED BY: H.R. CLEVELAND			G-SEC-2A	
REVIEWED BY: L.E. JAEGER			G-SCE-2	
REVIEWED BY:			APPROVED:	DATE
			CAPT. J.A. RAUCH	2/10/98
			CHIEF, OFFICE OF CIVIL ENGINEERING	
UNLESS OTHERWISE SPECIFIED: ALL DIMENSIONS ARE IN INCHES. TOLERANCES: DIM. ANG.				
			DRAWING NUMBER	REV.
			140429	A
SCALE: NONE			SHEET 2 OF 3	

NOTES:

1. WIRE SIZES ARE BASED ON MAXIMUM ANTICIPATED LOADS. WIRES MAY BE RESIZED ONLY IF LOAD VOLTAGE DROPS DO NOT EXCEED 0.35 VOLT.
2. THE LOW VOLTAGE DROP KIT (LVDK) CONSISTS OF TWO TERMINAL BOXES AND TWO #12/2 AWG CABLES (6 FT. EA.); PROJECT MANAGER BUYS #2 OR #1/0 CONDUCTOR AS NEEDED FOR SPECIFIC APPLICATION.

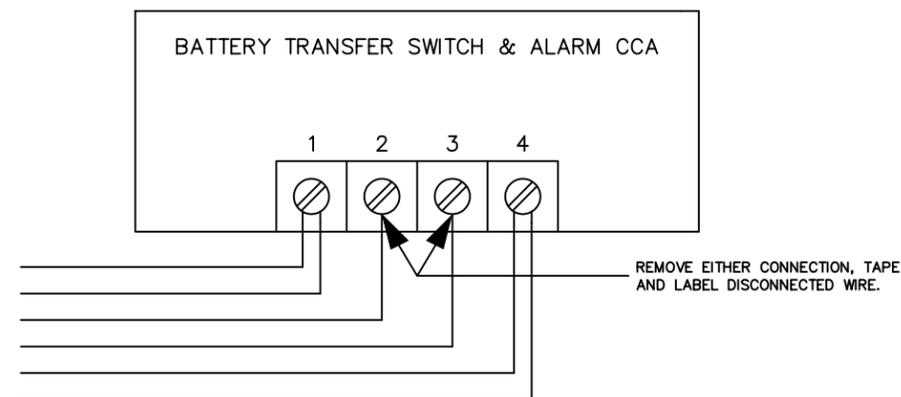
POINT TO POINT WIRE RUNNING LIST

FROM	WIRE SIZE (AWG)	MAX DISTANCE (FT)	TO
DISCONNECT/CKT BREAKER 1, LINE	12	10	ATON PWR SUPPLY, LINE IN
DISCONNECT/CKT BREAKER 1, NEUTRAL	12	10	ATON PWR SUPPLY, NEUTRAL IN
DISCONNECT/CKT BREAKER 1, GROUND	12	10	ATON PWR SUPPLY, GROUND IN
ATON PWR SUPPLY, 12.5VDC OUT(+)	10	10	SDB (OR MAC) MAIN PWR IN(+)
ATON PWR SUPPLY, 12.5VDC OUT(-)	10	10	SDB (OR MAC) MAIN PWR IN(-)
IF USING BATTERY CHARGER			
DISCONNECT/CKT BREAKER 1, LINE	12	10	BATTERY CHARGER, LINE IN
DISCONNECT/CKT BREAKER 1, NEUTRAL	12	10	BATTERY CHARGER, NEUTRAL IN
DISCONNECT/CKT BREAKER 1, GROUND	12	10	BATTERY CHARGER, GROUND IN
BATTERY CHARGER, OUT(+)	10	20	BATTERY(+)
BATTERY CHARGER, OUT(-)	10	20	BATTERY(-)
BATTERY CHARGER, TEMP SENSE CABLE			BATTERY CASE
BATTERY(+)	10	10	SDB (OR MAC) MAIN PWR IN(+)
BATTERY(-)	10	10	SDB (OR MAC) MAIN PWR IN(-)
SDB, PIN 1(+)	12	2.5	LOW VOLTAGE DROP BOX, A(+)
SDB, PIN 1(-)	12	2.5	LOW VOLTAGE DROP BOX, A(-)
LOW VOLTAGE DROP BOX, A(+)	2	150	LOW VOLTAGE DROP BOX, B(+)
LOW VOLTAGE DROP BOX, A(-)	2	150	LOW VOLTAGE DROP BOX, B(-)
LOW VOLTAGE DROP BOX, B(+)	12	2.5	MAIN LIGHT, LAMP(+)
LOW VOLTAGE DROP BOX, B(-)	12	2.5	MAIN LIGHT, LAMP(-)
MAIN LIGHT, LAMP(+)	12	2.5	MAIN LIGHT, CG-181(+)
MAIN LIGHT, LAMP(-)	12	2.5	MAIN LIGHT, CG-181(-)
SDB, PIN 2(+)	12	150	MAIN LIGHT, MOTOR(+)
SDB, PIN 2(-)	12	150	MAIN LIGHT, MOTOR(-)
PHOTORESISTOR, 1ST LEAD	18	10	MAIN LIGHT, FLASHER(S)
PHOTORESISTOR, 2ND LEAD	18	10	MAIN LIGHT, FLASHER(S)
SDB, PIN 3(+)	10	40	MAIN SOUND SIGNAL(+)
SDB, PIN 3(-)	10	40	MAIN SOUND SIGNAL(-)
SDB, PIN 4(+)	12	160	RACON, P1-6(+)
SDB, PIN 4(-)	12	160	RACON, P1-7(-)
SDB, PIN 7(+)	12	80	FOG DETECTOR, R3-2, VIA P3
SDB, PIN 7(-)	12	80	FOG DETECTOR, R3-1, VIA P3
FOG DETECTOR, R2-2, VIA P2	18	150	MAIN SOUND, TIMER CARD, TERM #2
FOG DETECTOR, R2-3, VIA P2	18	150	MAIN SOUND, TIMER CARD, TERM #3

MAXIMUM DISTANCES SHOWN ABOVE ARE BASED ON THE CONFIGURATION SHOWN ON SHEETS 1 & 2. CONSULT WITH THE WIRING SIZING CHAPTER OF COMDTINST M16500.24 WHEN CONFIGURATION IS DIFFERENT.

BILL OF MATERIALS

ITEM	TYPE	SOURCE OF SUPPLY	QUANTITY
ATON POWER SUPPLY	HIGH-WATTAGE (25-AMP)	G-SEC	1
<b>OR</b>	<b>OR</b>	<b>OR</b>	<b>OR</b>
BATTERY CHARGER	SCBF 100-12-25	G-SEC	1
BATTERY	ED-240	SAFT NIFE, INC.	1
SOLAR DISTRIBUTION BOX	SDB	G-SEC	1
LOW VOLTAGE DROP KIT	LVDK	G-SEC	SEE NOTE 4
ROTATING BEACON, 12 VOLT	VRB-25	G-SEC	1
LAMPCHANGER, 12 VOLT	CG-6P	ELC	1
FIXED RHYTHM FLASHER	CG-181	ELC	1
PHOTORESISTOR	L	ELC	1
MAIN LAMPS	12VDC, 1.9A	ELC	6
SOUND SIGNAL	FA-232/02	AUTOMATIC POWER, INC.	1
RACON	TIDELAND SIGNAL CORP.	G-OPN	1
FOG DETECTOR	VM100	G-SEC	1



DETAIL - SDB (OR MAC) FIELD MODIFICATION

REV.	DATE	APPR.	DESCRIPTION	BY
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<b>U.S. COAST GUARD HEADQUARTERS</b> <b>CIVIL ENGINEERING</b> <b>STANDARD AID TO NAVIGATION</b> <b>COMMERCIAL POWERED CATEGORY V</b> <b>12VDC LIGHTHOUSE SYSTEM</b> <b>WITHOUT EMERGENCY SIGNALS</b>				
DESIGNED:	STN			
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UNLESS OTHERWISE SPECIFIED: ALL DIMENSIONS ARE IN INCHES. TOLERANCES: DIM. ANG.				
			DRAWING NUMBER	REV.
			<b>130429</b>	<b>A</b>
			SCALE: NONE	SHEET 3 OF 3