

ELECTRONIC CIRCUITS

12 VOLT:

1. Living Room

- 1.1. Ceiling Lights over table (new)
- 1.2. Reading Lights on wall by windows (original)
- 1.3. MaxxFan ceiling (new)
- 1.4. Outside door light move switch off ceiling (original)

2. Kitchen

- 2.1. Behind refrigerator compressor new top by shelf (new 12)
- 2.2. Inside heater closet for all controls/monitors (new)
- 2.3. Below frig for new furnace (new)
- 2.4. Ceiling Lights (new 2?)
- 2.5. Propane light on upper cab converted to 12 volt (new)
- 2.6. Exhaust fan for stove (original was 110 AC)
- 2.7. Sink light under wall cab (original)
- 2.8. Above sink counter was for inverter, change to water pump

3. Bedroom

- 3.1. Ceiling lights (center of ceiling) (new)

4. Curb Side Bed

- 4.1. Reading light on wall next to kitchen (original 110 AC)

5. Street Side Bed

- 5.1. Reading light on wall next to kitchen (original 110 AC)

6. Bathroom

- 6.1. MaxxFan moved from bedroom to bath (new)
- 6.2. Ceiling light positioned behind MaxxFan (new)
- 6.3. Ceiling light above sink location (new)
- 6.4. Propane light converted to 12 volt and placed above sink cabinet on the interior wall (Use as night light??)

7. Misc:

- 7.1. LP alarm (new)
- 7.2. Carbon Monoxide alarm (new)
- 7.3. Battery Status Monitor (12 volt?) (new)
- 7.4. Dump valve switches (new)

12 DC Load:

30" swivel LED	1.25 amps
21.5" swivel LED	0.85 amps
18.5" swivel LED	0.20 amps
9" swivel LED	0.06 amps
MaxxFan - front	5.0 amp service circuit 5
MaxxFan - bath	5.0 amp service circuit 6
Drainmaster valve – black water	5.0 amp fast acting fuse circuit 7
Drainmaster valve – between grey	5.0 amp fast acting fuse circuit 8
Drainmaster valve – grey to black	5.0 amp fast acting fuse circuit 9
Suburban IW60 water heater	2.5 amps circuit 5
Isotherm frig replacement	15.0 amp circuit circuit 2
Raritan toilet	13.0 amps - 25 amp circuit
Suburban SF35	8.4 amps circuit 3
Safety-Alert LP & CO alarm	0.11 amps circuit 1
Coleman Mach 8 15K BTU	15.9 amps AC circuit 1
Range exhaust fan motor	1.2 amps
Raritan macerator pump w/ valve	15.0 amps 25 amp circuit 10
Shurflo 2088 pump	9.0 amps 15 amp circuit 4
Power Converter 80 amp	20.0 amps AC circuit 2

MISC:

Speakers on shelf above front window.

110 AC Voltage:

1. Living Room

- 1.1. Plug In each corner of lower front wall shelf (original)
- 1.2. Plug In on upper front shelf for radio/CD player.
- 1.3. Plug In behind banquette for brake battery trickle charger.

2. Kitchen

- 2.1. Plug-in by right corner of stove on wall GFCI (original)
- 2.2. Plug-in behind stove (110 AC???)

3. Curb Side Bed

- 3.1. Plug-in on wall be medicine cabinet (original)
- 3.2. Plug-in down by mattress below reading light (original) do we need???

4. Street Side Bed

- 4.1. Shore power comes in under bed close to bathroom wall (original location)
- 4.2. Plug-in on wall just below wall cab by bathroom (original)
- 4.3. Plug-in down by mattress below reading light (original) do we need???

5. Bath

- 5.1. Plug-in by sink (GFCI) (original but new location).

6. Air Conditioning Coleman Mach 8 15,000 BTU with pump & heating element.

POWER SPECS

110 AC:

✚ Coleman Mach 8 A/C	15,000 BTU	20 amp circuit
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12 VOLT:

✚ Isotherm Frig Unit		15 amp fuse
✚ SeaEra QC Toilet	18 amp draw	25 amp fuse
○ (pressurized water source)		
✚ Suburban SF25	8.5 amp draw	15 amp fuse?
✚ MaxxFan Deluxe		5 amp fuse (2)
✚ Raritan Macerator Pump	16 amp draw	25 amp fuse
✚ ShurFlo Revolution	7.5 amp draw	10 amp fuse?
✚ 30" Swivel LED light	1.25 amp draw	
✚ 21.5" Swivel LED light	0.85 amp draw	
✚ 18.5" Swivel LED light	0.2 amp draw	
✚ 9" Swivel LED light	0.06 amp draw	
✚ 2.75" recessed 12 LED	0.18 amp draw	
✚ 10.5" oval dome light	0.44 amp draw	
✚ Outside plugin light (LED)		

Trailer highway lights to wire in bathroom:

Rear side markers

Left and Right turn signal/brake lights

Left and Right trailer lights

High Mount brake light

License plate light

Left and Right backup lights

Reverse camera

Rear view camera

Sewer hookup light with switch (inside black water tank compartment or outside on frame rail??).

Bathroom wiring:

12 volt toilet

12 volt maxxfan

12 volt light over sink

12 volt light in ceiling ?????

110 volt plug in by sink

Typical Low Voltage Wire Sizes Guide

Air Conditioning- 10 GAUGE	Heater Switch- 10 GAUGE
Alternator- 10 GAUGE	Horn Button- 13 GAUGE
Ammeter- 10 GAUGE	Horn To Relay- 10 GAUGE
Cigarette Lighter- 14 GAUGE	Ignition Switch- 12 GAUGE
Clock- 18 GAUGE	Low-Amps Circuits- 18 GAUGE
Coil Wire- 16 GAUGE	Parking Lights- 16 GAUGE
Dome Lights- 16 GAUGE	Radio To Fuse Blocks- 14 GAUGE
Driving Lights- 14 GAUGE	Single Bulbs- 18 GAUGE
Gauges- 14 GAUGE	Starter To Relay- 16 GAUGE
Generator (Charging)- 10 GAUGE	Stoplights- 16 GAUGE
Generator To Starter- 16 GAUGE	Tail Lights- 16 GAUGE
Headlight Circuit- 14 GAUGE	Turn Signals- 16 GAUGE
Headlight Switch To Fuse Block- 12 GAUGE	CD To Fuse Block- 14 GAUGE
Heater Leads- 16 GAUGE	Windshield Wiper & Washer- 14 GAUGE

For safety and best results When circuit is longer than 10 feet, always use the next larger gauge size, which is the next lower even number.

Wire Gauge Selection Table 12 Volt Circuit

AMPS	3'	5'	7'	10'	15'	20'	25'
0 to 5	18	18	18	18	18	18	18
6	18	18	18	18	18	18	18
7	18	18	18	18	18	18	18
8	18	18	18	18	18	16	16
10	18	18	18	18	16	16	16
11	18	18	18	18	16	16	14
12	18	18	18	18	16	16	14
15	18	18	18	18	14	14	12
18	18	18	16	16	14	14	12
20	18	18	16	16	14	12	10
22	18	18	16	16	12	12	10
24	18	18	16	16	12	12	10
30	18	16	16	14	10	10	10
40	18	16	14	12	10	10	8
50	16	14	12	12	10	10	8
100	12	12	10	10	6	6	4
150	10	10	8	8	4	4	2
200	10	8	8	6	4	4	2

UNDERFLOOR CONDUIT RUNS

Bolt boxes to underside of floor using cover screw holes. Make a jig from a cover. Once boxes are in place conduit can be run in between.

Where to put boxes for 12 volt:

Curb Side:

- a) Between 1st & 2nd from front for wrap around booth ceiling light and 12-volt auxiliary plug for charging on 12 volts (blue sea examples)



- b) Between front stair outrigger and next outrigger forward for porch light and outside receptacle light, with one switch to control both.
- c) Big box at electrical closet (may connect with 12 volt and 7 wire conduit).
- d) At front of bed area where batteries and controller are.
- e) At rear of bed area for bed light (switch on lamp). Also for lead to bathroom switches for lights (ceiling and sink)

Street Side:

- a) At area in front of FW tank bay for floor conduit coming across. For water pump or

b) Between 1st and 2nd full outriggers at front for 12 volt auxiliary plug and USB ports.