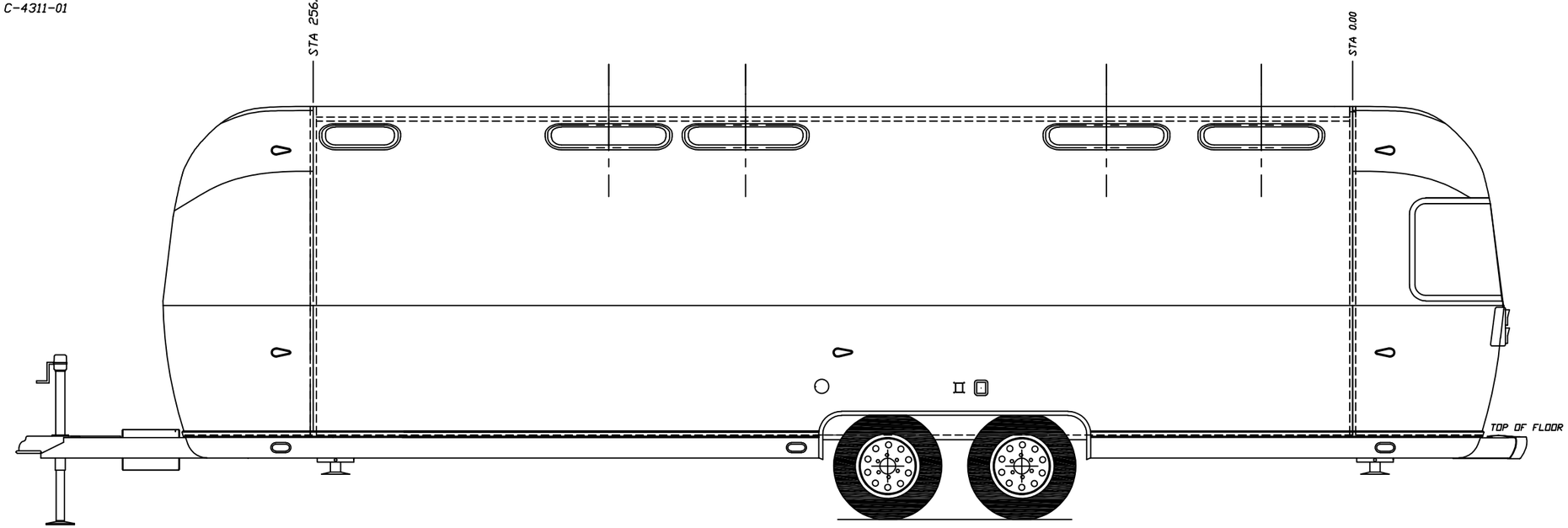
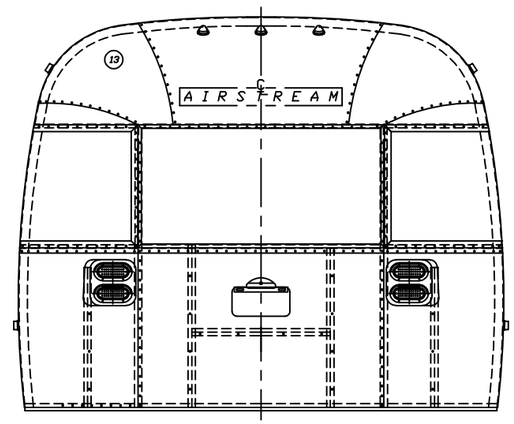
C-4311-01

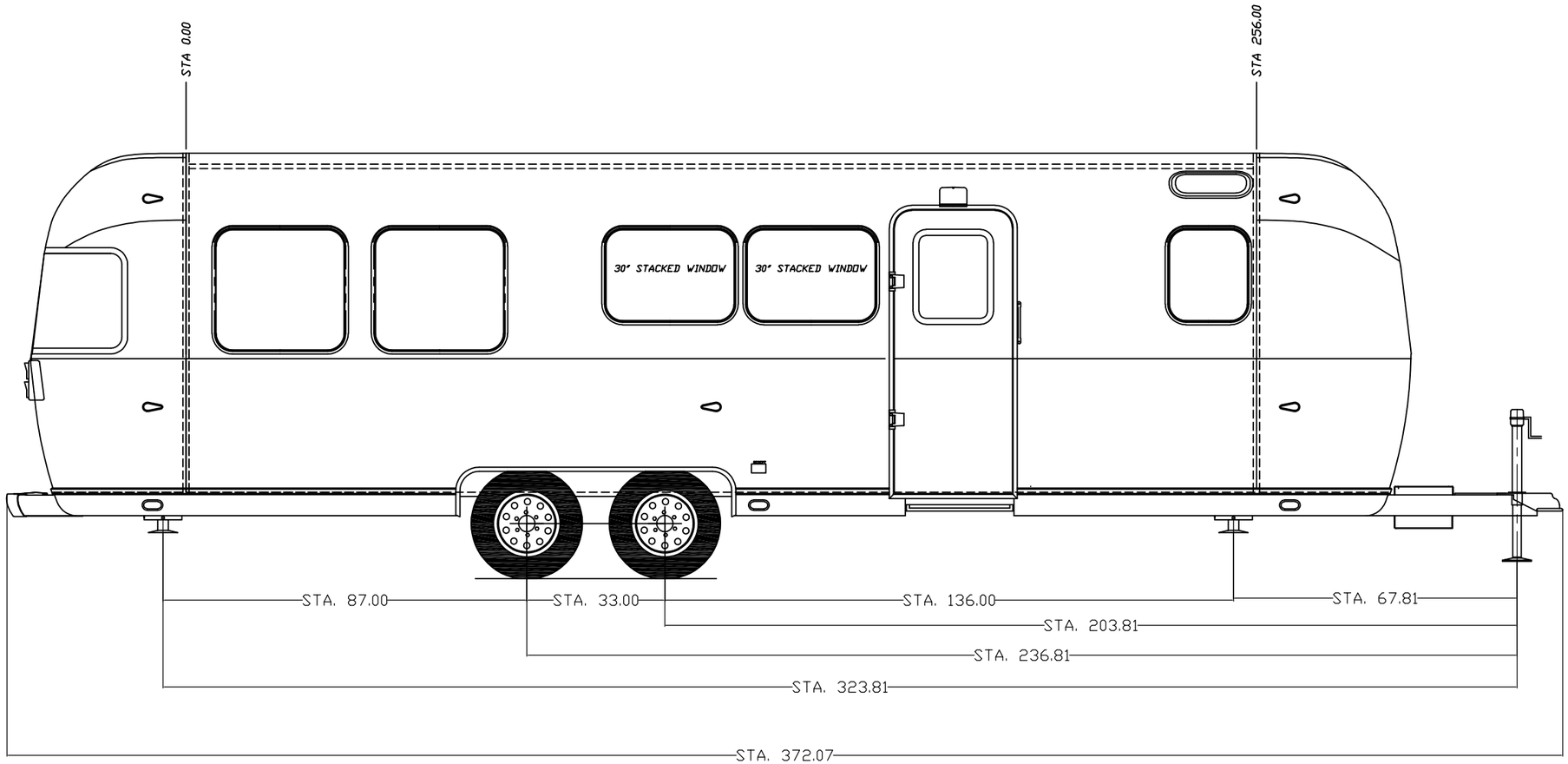
LET	DATE	E.C.N.	REVISION RECORD	BY

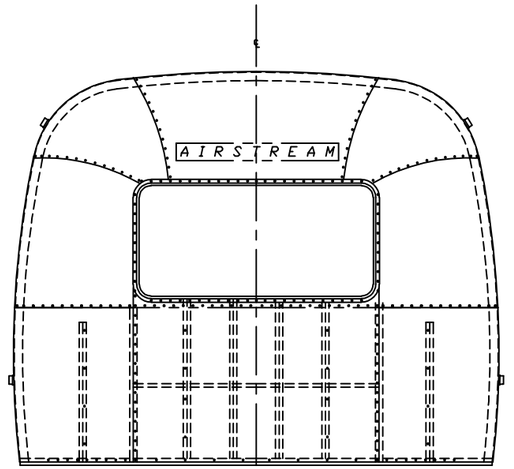
ATTACHMENT 7





REAR ENDSHELL





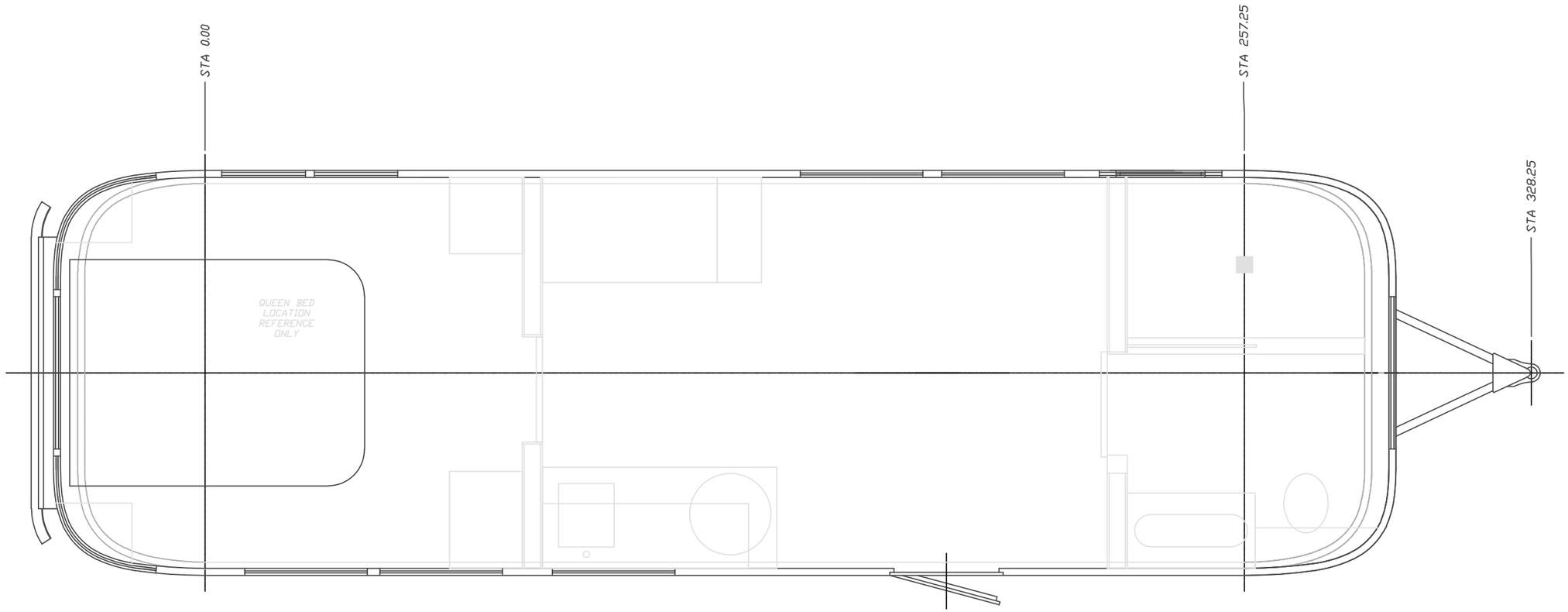
FRONT ENDSHELL

ITEM	PART NUMBER	DESCRIPTION	QTY	UM

TOLERANCES ±	Airstream		DRAWN BY GXB
NEXT ASS'Y			APPROVED BY
	FIRST USAGE: AUTOCAMP		
TITLE	SHELL ASS'Y - 30' CV		
SCALE 1=16	DATE 05/24/19	DRAWING NUMBER C-4311-01	D REV.

LET	DATE	P.C.R.	REVISION RECORD	BY

ATTACHMENT 7



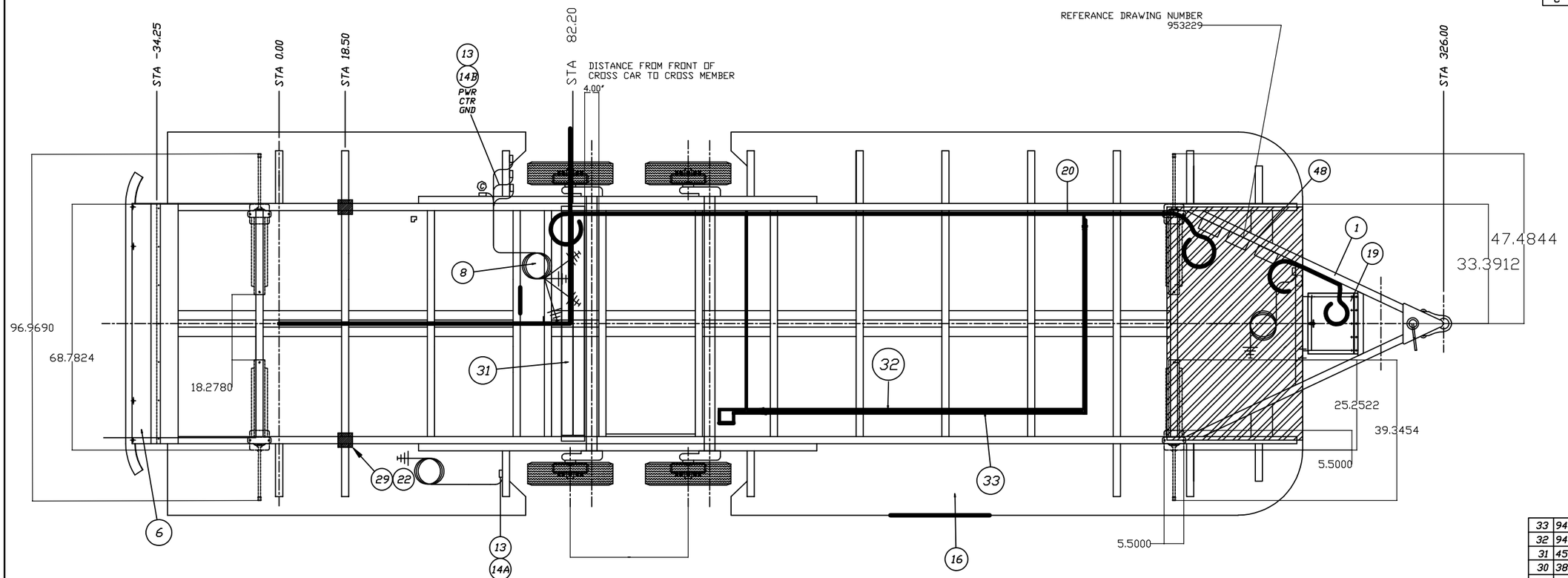
ITEM	PART NUMBER	DESCRIPTION	QTY	UM

TOLERANCES ±	Airstream	DRAWN BY GXB
NEXT ASS'Y	FIRST USAGE: AUTOCAMP 2019	APPROVED BY
TITLE: FLOOR PLAN		
SCALE 1=16	DATE 11.12.18	DRAWING NUMBER AC19-FP D REV -

916129

LET	DATE	E.C.N.	REVISION RECORD	BY
	3/16	E00601	PRODUCTION RELEASE	HM
A	4/16	E00601	CHANGED 410980-13 TO 112099-01	HM
B	6/16	T-03896	ITEM 17 WAS 400093, 18 WAS 400093-04	NB
C	4/18	CV-0018	ADD ANOTHER GROUND FOR GFCI SUBPNL	JG

ATTACHMENT 7



ITEM	PART NUMBER	DESCRIPTION	QTY	UM
33	943804-02	BELOW FLOOR FRESH WATER HOT	1	EA
32	943804-01	BELOW FLOOR FRESH WATER COLD	1	EA
31	454205	CROSSCAR RACEWAY	1	EA
30	382261	ROUND HOLE COVER UP DECAL	2	EA
29	510540-06	WIRE- 8 GA. WHITE TEW	8.00	FT
28	203756	PLUG - SQUARE FINISHING SMOOTH	2	EA
27	114679	ALUM UNDERBELLY .019X65.75XCOI	1.33	SF
26	330011	RIVET BLIND BLACK	30	EA
25	330151	RIVET- 5/32" MULTI GRIP BLIND	175	EA
24	512401-02	INLET-MALE 125V 30A #F30INS-GS	1	EA
23	512401-01	CORD-POWER 30A 30' #F30R30-SS	1	EA
22	101110	ALUM. 0.090 x 3.00" x 3.00"	2	EA
21	385020	STICKER SELF ADHERING, JACK	2	EA
20	511756	HARNESS-POWER CENTER	1	EA
19	410551-02	ASSEMBLY - BATTERY BOX LID	1	EA
B 18	345074-05	SCREW 5/16-18 X 7/8HEX WASHER	12	EA
B 17	401027	KIT, LEVELING JACK - MANUAL	1	EA
16	115684	ALUM UNDERBELLY .035X65.75XCOIL	129.00	SF
15	101131-02	COIL ALUM 22.50 WIDE/UNDERBELLY	88.00	SF
14B		8.00'	4	EA
14A		6.00'	1	EA
14	500839	WIRE,BARE COPPER 8 GA.	28.00	FT
13	500038	LUG GROUND	4	EA
12	111474	BREAK AWAY SWITCH INSTALL	1	EA
11	203727	FOIL-SNG BUBBLE FLEX 96"X62.5	79.00	SF
10	3300024	WIRE HARNESS 25 FT AIRSTREAM	1	EA
9	115401	7-WAY PLUG LENGTH SPEC	1	EA
8	500886-01	ASSEMBLY, 7-WAY COMPLETE	1	EA
6	110403-01	INSTALL BUMPER/HOSE STORAGE	1	EA
5	410598	FOOT PAD #12231	1	EA
4	410945	HITCH JACK	1	EA
3	111689	TIRE & WHEEL ASSY 15"	4	EA
A 2	112099-01	INSTALL AXLE WB-4500# DEXTER EZ LUBE	2	EA
1	916127-01	AUTOCAMP CHASSIS WELDMENT - LAYOUT	1	EA

TOLERANCES ±	Airstream		DRAWN BY HM
NEXT ASS'Y	PRODUCT LINE AUTOCAMP		APPROVED BY
TITLE	AUTOCAMP CHASSIS PREP - LAYOUT		
SCALE 1=16	DATE 1/29/16	DRAWING NUMBER 916129	D REV. C

ATTACHMENT 7

2023 Autocamp B model dimensions

Length – 30’ 10”
Ext width – 8’ 5.5”
Interior width – 8’ 1”
Interior height – 6’ 4”
Exterior height w A/C – 9’ 9”
Unit weight – 6300 lb
Hitch weight – 1000 lb

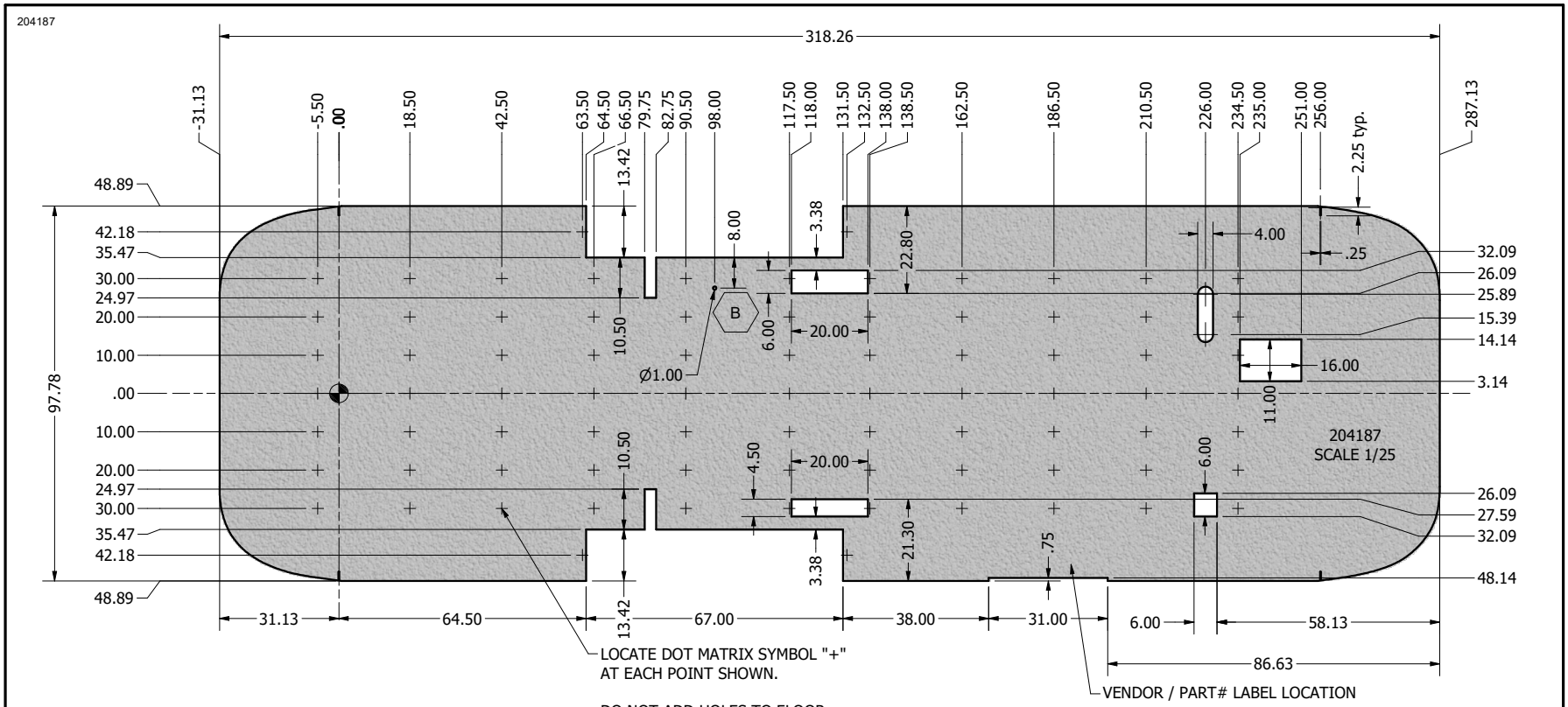
Door dimensions – 28.25” x 68.67”

Tire size – 225/75 R15 - Diameter 28.3

Window sizes and glass numbers
clear large bedroom 49” x 24”: 195510-24c
clear bedroom corners
RS – 28.8” x 25.3” : 372089C
CS - 28.8” x 25.3” : 372088C
clear bedroom 30” x30” : 195519-93c
clear galley 30.5” x 22.2”: 195510-07c
Frosted small bathroom18.5” x 22.2”: 195510-12cf
Frosted Large bathroom 49” x 24”: 195510-29cf
clear vista 30" x 7.13”: 372271-02C
clear vista 18" x 7.13”: 372271-01C
main door frosted: 372232CF
clear fixed 30”x20”: 371466

ATTACHMENT 7

ATTACHMENT 7



NOTES:
1. MATERIAL: TRANSCORE SERIES RS1915SL (RMS0217)
   THICKESS: 0.594" +0.015/-0.045
   TOP SKIN: 0.090" SERIES 90 "S" 12 LAYER SKIN WITH RANDOM GLASS "R" SURFACE
   BOTTOM SKIN: 0.041" SERIES 50 "L" 4 LAYER SKIN WITH SURLOCK BONDABLE SURFACE "S"
2. DENSITY: 1.41 LBS./FT.2; APPROXIMATE WEIGHT: 270.03 LBS.
3. SCRIM COAT APPLIED TO TOP SURFACE.
4. ALL EDGES TO BE FREE OF BURRS EXCEEDING 1/8".
5. PACKAGING/SHIPPING MATERIALS SHOULD BE SUFFICIENT TO AVOID DAMAGE TO PARTS DURING SHIPMENT.

REV	DATE	PCR	DESCRIPTION	BY
B	10/28/2021	CV-000043	ADDED 1" DIAMETER HOLE PER PRODUCTION	DEW
A	12/11/2019	CV-AC20	ADDED OUTRIGGER HOLES	GXB
-	11/13/2019	CV-AC20	INITIAL RELEASE	GXB

UNLESS OTHERWISE SPECIFIED
GENERAL TOLERANCES APPLY
X.XXX = +/-.015
X.XX = +/-.06
X.X = +/-.13
X/X = +/-1/4
X° = +/-5°

AIRSTREAM

DRAWN DATE: 11/13/2019	STATUS: Work In Progress	SHEET: 1 OF 1	
DESIGNER: gbedalli	FIRST USAGE: AUTOCAMP 2020		
DETAILER: gbedalli	PART DESCRIPTION: COMPOSITE FLOOR		
CHECKED BY:			
SIZE B	THIRD ANGLE	PART NUMBER: 204187	REV B

C:_Vault Working Folder\Designs\2\204187\204187.ipt

ATTACHMENT 7

To place an order email partsinq@airstream.com			***For technical support call 937-596-6111, then press 1***
Part Description:	**Part #:**	**Price (TBD)**	**Comments:**
Window **Glass only** Bedroom large and small, galley, portholes, front and frosted rear, entry door, bathroom, frosted large and small bathroom	clear large bedroom: 195510-24c clear 30x30 bedroom: 195519-93c clear galley: 195510-07c Frosted small bathroom: 195510-12cf Frosted Large bathroom: 195510-29cf clear 30" vista: 372271-02C clear 18" vista: 372271-01C main door frosted: 372232CF clear 30x20 fixed: 371466		
Fantastic Fan lift motors	382240-102	$ 63.06	
Fantastic Fan - entire unit	690763	$ 182.31	
Fantastic Fan remote control	690763-100	$ 17.48	
Fantastic Fan screens	381450-100	$ 19.04	
Thermostats -	690723-04	$ 58.11	
AC Control board	690699-03	$90.44	
Roof air filter grille	9430-4071	$ 15.50	
Edison bulbs for AS's	512975	$ 22.94	
TV (32", for Zion and later units)	690791	$378.86	
Blinds for opening windows (30" wide)	703700-04	$ 116.47	
Blinds for fixed galley window	703700-02	$ 105.87	
6 port hole shades	704199-05	$ 25.78	
6 sun roof shades - gray	704120-02	$ 21.70	
Skylight shade - white	704120-03	$ 21.53	
Water inlet 2	601392-06	$ 24.85	
smart plug inlet 2	513581	$ 116.20	
Window lift arm knobs	Grey: 380230-03 Red:380230-04	$ 1.66	
Kitchen faucets	602747	$ 327.06	
Bathroom faucets	602748	$ 296.17	
2 edison bulb light fixture	513397	$ 22.72	
Emergency exit shades and track guides			
	Curb Side Center: 998231-01	$ 53.67	
	Curb Side Side: 998231-02	$ 62.13	
	Road Side Center: 998231-03	$ 53.67	
	Road Side Side: 998231-04	$ 62.13	
Paper towel holders	382320	$ 40.62	
Shower rack w bottle holders	382746	$ 30.31	
Bathroom shelves (shelf)	382602-01	$ 109.96	
Bathroom shelf mounting bracket	382602-02	$ 71.07	
Toilet	602749	$ 672.84	
Toilet paper holder	382632	$ 62.58	
Kitchen round accent light under cabinet 3"	512830	$ 13.88	
Cabinet hardware handles	382321	$ 8.69	
Round ceiling light 4"	513136	$ 34.81	
Bedroom USB plugs	513331	$ 14.87	
Push Button Light Switch	512979	$ 51.31	
Airstream stabilizer arm and jack	401027	$ 194.63	kit of 4 jacks and 1 manual crank
Door magnets entry door	382743	$ 36.16	

ATTACHMENT 7

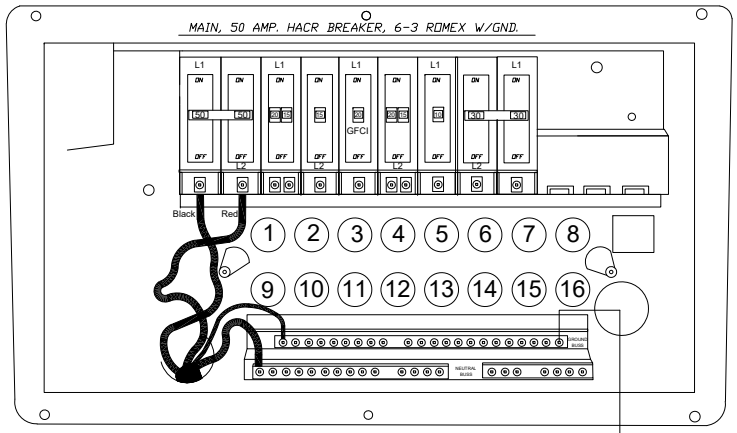
Door light above entry door with photocell	994165	$	69.01	
Cabinet hardware blum underside	382203-06	$	1.94	plastic clips
Cabinet hinges	382340		$3.61	
Grabber catch latch - used on access panels	381228-02	$	4.98	
Rivets white and stainless	White: 330166	$	0.52	Stainless are specific to location on Airstream, please reach out to Airstream for specific location replacement number and comment
Furnace air filters				AutoCamp to Purchase
20 AMP GFCI - circuit breaker	501564-06	$	32.20	
20 AMP - circuit breaker	510564-01	$	4.30	
30/30 DOUBLE - circuit breaker	510564-16	$	21.20	
30/20 SINGLE - circuit breaker	510564-05	$	6.36	
30 AMP - circuit breaker				
15 AMP - circuit breaker	510564-08	$	6.93	
Shower arm with flange	602791	$	176.37	
Sliding bathroom door hardware	382323	$	115.67	
Bathroom overflow passage gasket	602900	$	18.72	
Shower Diverters	602764	$	59.91	
shower drain covers	802357-01	$	59.10	
Paint (Snowbank) for interior walls	995002	$	19.62	
Shower Glass Hardware	Wall Clamp: 382588	$	10.19	
	ceiling tube: 382590	$	26.05	5' length
	ceiling mount: 382589	$	24.69	
Clear Large Bedroom (rear egress)	195510-24c	$	176.70	
Clear 30x30 bedroom	195510-93c	$	167.61	
Clear Galley (shore & street identical) kit counter	195510-07c	$	184.19	
Frosted Small Bathroom (shore)	195510-12cf	$	150.79	
Frosted Large Bathroom (front)	195510-29cf	$	209.58	
Glass 30 x 20 clear fixed window	371466	$	30.76	
Glass frosted main door	372232CF	$	41.60	
Glass clear 18" Vista View	372271-01C	$	24.79	
Glass clear 30" Vista View	372271-02C	$	23.06	
RS Corrner Pano window (bedroom)	372089-C			Note - description of window shows CS, since it is ususally front
CS Corner Pano window (bedroom)	372088-C			Note - description of window shows RS, since it is ususally front

ATTACHMENT 7

953586

SERIES: PRECISION CIRCUIT PCS CONTROL, 00-10020-550
WITH PANELBOARD - 00-10020-400
INPUT: 240 VAC 60 Hz, 950 WATTS
LISTINGS: cULus

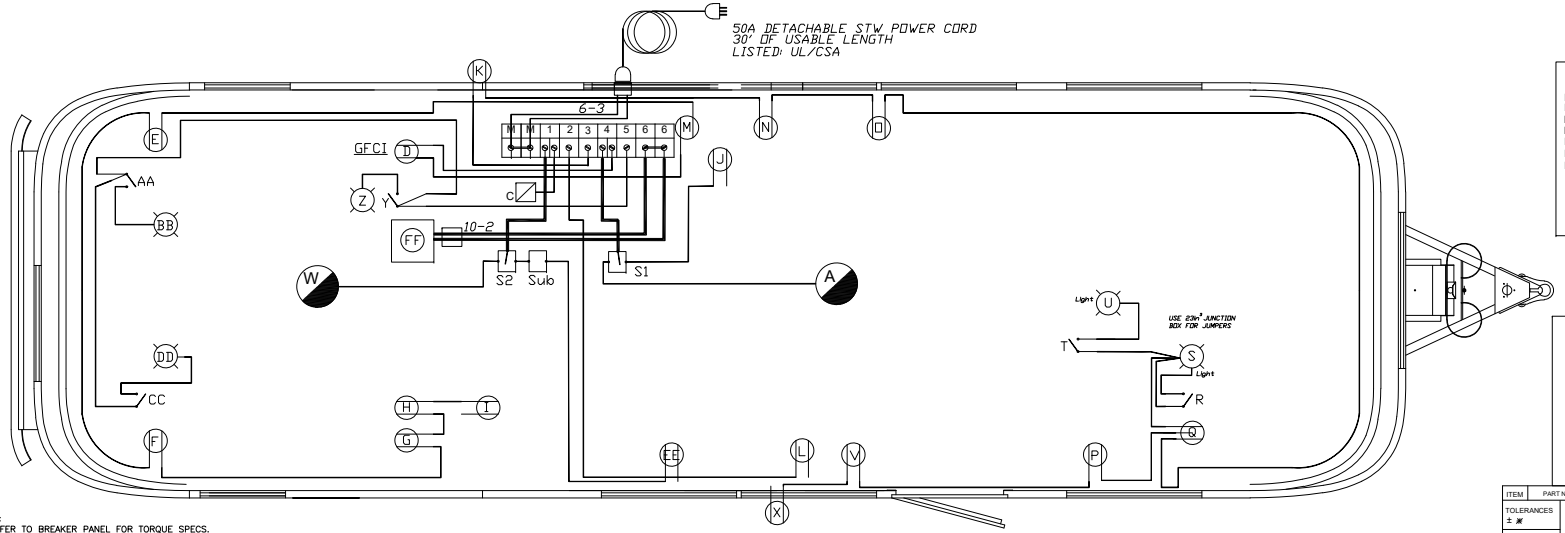
LET	DATE	P.C.R.	REVISION RECORD	BY
-	10/19	CV-0030	PRODUCTION RELEASE	JG
A	8/20	E-03100	REV GFCI FROM I TO D	JG



110V CIRCUIT CHART						
LEG	CRT.	SYM	DESCRIPTION	RATED (AMPS)	WIRE GA.	BREAKER TYPE
1	1	S2	**SELECTOR SWITCH 2**		12-2	20A HACR
		W	BDRM. AIR CONDITIONER	16.0	12-2	
		EE	**SUB (GALLEY TOP RECPT.)**	12.0	14-2	15A GFCI
	2	C	**AC TO DC CONVERTER**	8.0	14-2	15A HACR
	7		**BEDROOM SCONCE**	3.0	14-2	10A HACR
		Y	RS BDRM. SCONCE LT. SW.	0.0		
		Z	RS BDRM. SCONCE LT.	1.0		
		AA	RS PENDANT LT. SW.	0.0		
		BB	RS PENDANT LT.	1.0		
		CC	CS PENDANT LT. SW.	0.0		
		DD	CS PENDANT LT.	1.0		
	4		**MAIN CABIN**	11.3	12-2	20A GFCI
		K	(RS) OUTSIDE RECEPTACLE	1.5		
		N	RS MAIN CABIN RECEPT.	1.5		
		O	RS SOFA RECEPT.	1.5		
		P	FWD. CS MAIN CABIN RECPT.	1.5		
		Q	BATHROOM RECEPTACLE	1.5		
		R	BATHROOM SCONCE LT. SW.	0.0		
		S	BATHROOM SCONCE LT.	0.4		
		T	MAIN CABIN SCONCE LT. SW.	0.0		
		U	MAIN CABIN SCONCE LT.	0.4		
		V	FWD. GALLEY RECEPT.	1.5		
		X	OUTSIDE RECEPTACLE	1.5		
	8	FF	FURNACE (LEG 1)	10.0	10-2	30A HACR
TOTAL CURRENT OF LEG 1				48.3		

110V CIRCUIT CHART						
LEG	CRT.	SYM	DESCRIPTION	RATED (AMPS)	WIRE GA.	BREAKER TYPE
2	5	SW1	**SELECTOR SWITCH 1**		12-2	20A HACR
		A	AIR CONDITIONER	16.0	12-2	
		J	MICROWAVE (SINGLE)	12.0	12-2	
	6		**BEDROOM RECEPTS**	12.7	14-2	15A HACR
		M	REFER RECEPT.(SINGLE)	3.7		
		D	FWD RS BDRM. RECPT.	1.5		
		E	AFT RS BDRM. RECPT.	1.5		
		F	AFT CS BDRM. RECPT.	1.5		
		G	FWD. CS BEDROOM RECPT.	1.5		
		H	FWD BDRM. TV RECPT.	1.5		
		I	GALLEY RECPT. (GFCI)	1.5		
	3	L	**WATER HEATER**	12.0	14-2	15A HACR
	8	FF	FURNACE (LEG 2)	10	10-2	30A HACR
TOTAL CURRENT OF LEG 1				50.7		

50A DETACHABLE STW POWER CORD
30' OF USABLE LENGTH
LISTED: UL/CSA



BREAKER LABEL

MAIN LEG 1, BLACK - 50AMP
MAIN LEG 2, RED - 50AMP
POS. 1 - 20 AMP - REAR AC / GALLEY TOP RCPT(GFCI)
POS. 2 - 15 AMP - AC TO DC CONVERTER
POS. 3 - 15 AMP - WATER HEATER
POS. 4 - 20 AMP - MAIN CABIN RECEPTACLES (GFCI)
POS. 5 - 20 AMP - MAIN CABIN AC / MICROWAVE
POS. 6 - 15 AMP - BEDROOM RECEPTS.
POS. 7 - 10 AMP - BEDROOM SCONCE LIGHTS
POS. 8 - 30 AMP - LEG 2 FURNACE
POS. 8 - 30 AMP - LEG 1 FURNACE

*Circuit Label reads from Left to Right in Panel

NOTES:
1.) REFER TO BREAKER PANEL FOR TORQUE SPECS.
2.) -> DO NOT CUT THE LOOP
1st: Clamp the first continuous line with proper tool.
2nd: Re-open receptacle and clamp the other wire into the receptacle. Make sure side latches are secure to the recept.
3.) ALL RECEPTACLES ARE DUPLEX UNLESS OTHERWISE SPECIFIED.

NOTE S1:
THIS CIRCUIT SUPPLIES POWER TO POWER SHARE SWITCH, WHICH WILL OPERATE EITHER AIR CONDITIONER 'A' OR RECEPT. 'J' MICROWAVE WITH PRIORITY GIVEN TO THE RECEPT.

NOTE S2:
THIS CIRCUIT SUPPLIES POWER TO POWER SHARE SWITCH, WHICH WILL OPERATE EITHER AIR CONDITIONER 'W' OR RECEPT. 'EE' WITH PRIORITY GIVEN TO THE RECEPT.

ITEM	PART NUMBER	DESCRIPTION	QTY	UM

TOLERANCES ± ✱ | NEXT ASSY ✱ | Airstream | DRAWN BY JLDG | APPROVED BY | FIRST USAGE: 2020.5 AUTOCAMP B MODEL

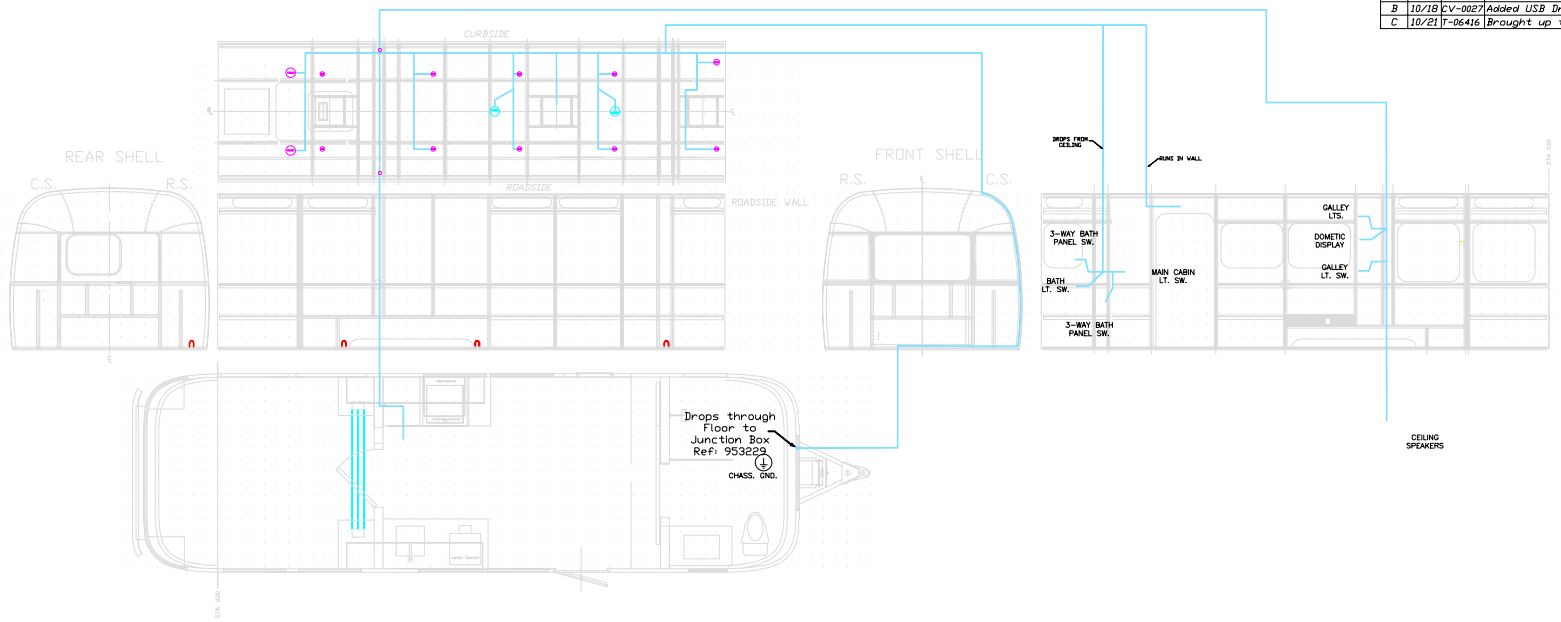
TITLE: LAYOUT, 50A, 120V

SCALE: NTS | DATE: 10/29/19 | DRAWING NUMBER: 953586 | D | REV. A

ATTACHMENT 7

953342S2

LET	DATE	P.C.R.	REVISION RECORD	BY
A	6/18	CV-0020	DEL REAR BDRM LTS+ 2ND FAN	JG
B	10/18	CV-0027	Added USB Drops	JR
C	10/21	T-06416	Brought up to Standards	CMK



NOTES:
1. GRID MARKS ARE 6" APART AND FOR REFERENCE ONLY.

12V LOCATION CHART

ROADSIDE

Ceiling

SYMBOL	DESCRIPTION	FROM STA '0'	TO FLOOR	TO C.L.	MOUNT RECEPT.	INSTALL ON OPT.
*			*		*	*
*	Bedroom Speaker	36.5"	Ceiling	19.64"	*	*
*	Bedroom Ceiling Light	52.5"	*	18.88"	*	*
*	Ceiling Harness Skin Exit Hole - 1.19"	81.5	*	31"	*	*
*	Living Room Light	108.5"	*	18.88"	*	*
*	A/C 12V Wire	108.5"	*	On C.L.	*	*
*	Chassis Ground	108.5"	*	On C.L.	*	*
*	Living Room Light	139.5"	*	18.88"	*	*
*	Living Room Speaker	139.5"	Ceiling	On C.L.	*	*
*			*	*	*	*
*	Living Room Light	168.5"	*	18.88"	*	*
*	Living Room Light	201.75"	*	18.88"	*	*
*	Living Room Speaker	201.75"	*	On C.L.	*	*
*	Fan 12V Wire	218.5"	*	*	*	*
*	Bathroom Light	251.5"	*	18.88"	*	*
*	CATV Inlet	136.25"	11"	*	*	*
*	CAT5 Double Gang Recept.	129.97"	25.75"	*	V	*
	Amplifier Switch Wire Pull	131.58"	25.75"	*	V	*

CURBSIDE

Ceiling

SYMBOL	DESCRIPTION	FROM STA '0'	TO FLOOR	TO C.L.	MOUNT RECEPT.	INSTALL ON OPT.
*	Ⓐ		*		*	*
*	Bedroom Speaker	36.5"	Ceiling	19.64"	*	*
*	Bedroom Ceiling Light	52.5"	*	18.88"	*	*
*	Ceiling Harness Skin Exit Hole - 1.19"	81.5"	*	18.88"	*	*
*	Living Room Light	108.5"	*	18.88"	*	*
*	Living Room Light	139.5"	*	18.88"	*	*
*	Living Room Light	168.5	*	18.88"	*	*
*	Living Room Light	201.5"	*	18.88"	*	*
*	Bathroom Light	251.5"	*	18.88"	*	*
*	Bathroom Light Switch	224.5"	38.5"	*	*	*
*	Living Room Dimmer Switch Wires	203"	38.5"	*	*	*
*	Door Light Wires	183"	70.25"	*	*	*
*	Galley Light Switch Wires	83"	*	28.5"	*	*
*	Ceiling Speaker Wires (All)	83"	*	28.5"	*	*
*					*	*
					*	*

CIR. COLOR CHART

Clr.	Ga	Color	Function
2	14	Yellow	(+) 12V. Feed
2A	14	Yellow/blk.	Main Cabin Ceiling Lts.
3	14	Pink	(+) 12v Feed
3A	14	Pink/Blk.	Galley Lights
5	14	Blue	(+) 12V. Feed
5A	14	Blue/blk	Bath Ceiling Lights
7	14	Tan	Panel Rope Light +12V
7A	14	Tan/Black	3-Way Switch Traveler Wire
7B	14	Tan/White	3-Way Switch Traveler Wire
7C	14	Tan/Red	Jumper to Rope Light
11	18	Green	Bedroom Spkr. (R.S. +)
11A	18	Green/blk.	Bedroom Spkr. (R.S. -)
12	18	Purple	Bedroom Spkr. (C.S. +)
12A	18	Purple/blk.	Bedroom Spkr. (C.S. -)
14	18	White	Livingroom Spkr. (Front +)
14A	18	White/blk.	Livingroom Spkr. (Front -)
15	18	Grey	Livingroom Spkr. (Rear +)
15A	18	Grey/red	Livingroom Spkr. (Rear -)
150	*	White	Chassis Ground

ITEM	PART NUMBER	DESCRIPTION	QTY	UM

TOLERANCES: ± *
NEXT ASS'Y: *
DRAWN BY: Joey R
APPROVED BY:
FIRST USAGE: 2018 30' AUTOCAMP

Airstream

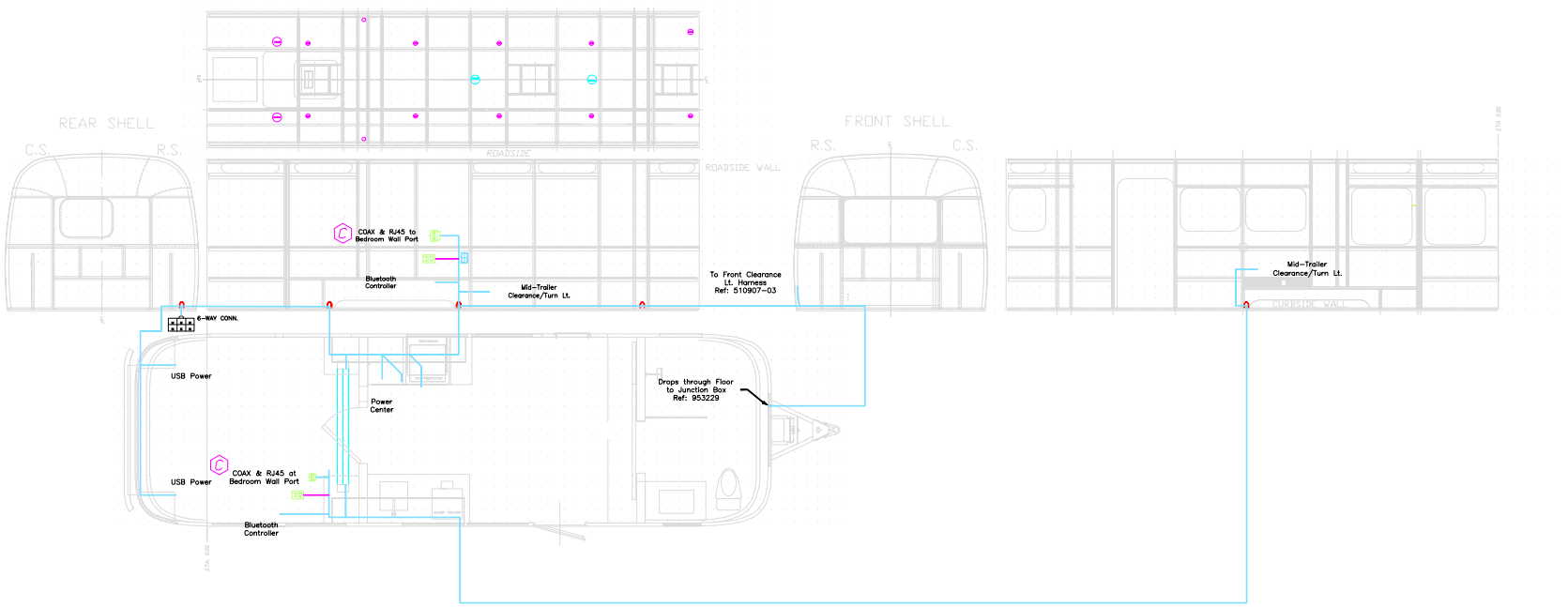
TITLE: 12VDC LOC/ROUTING, CS CEILING HARNESS

SCALE: N.T.S.
DATE: 4/12/17
DRAWING NUMBER: 953342S2
D
REV: C

ATTACHMENT 7

953342S3

LET	DATE	P.C.R.	REVISION RECORD	BY
A	6/18	CV-0020	DEL REAR BDRM LTS+ 2ND FAN	JG
B	10/18	CV-0027	Added USB Drops	JR
C	10/21	T-06416	Add CAT5e to COAX run	CMK



NOTES:
1. GRID MARKS ARE 6" APART AND FOR REFERENCE ONLY.

	ROADSIDE					
SYMBOL	DESCRIPTION	FROM STA '0'	TO FLOOR	TO C.L.	MOUNT RECEPT.	INSTALL ON OPT.
*	SKIN ENTRY (MOUSE HOLE)	REAR WRAP	19"	33"	*	*
*	SKIN ENTRY (MOUSE HOLE)	REAR WRAP	ON FLOOR	41.5"	*	*
*	SKIN ENTRY (MOUSE HOLE)	63.75"	ON FLOOR	*	*	*
*	SKIN ENTRY (MOUSE HOLE)	131"	ON FLOOR	*	*	*

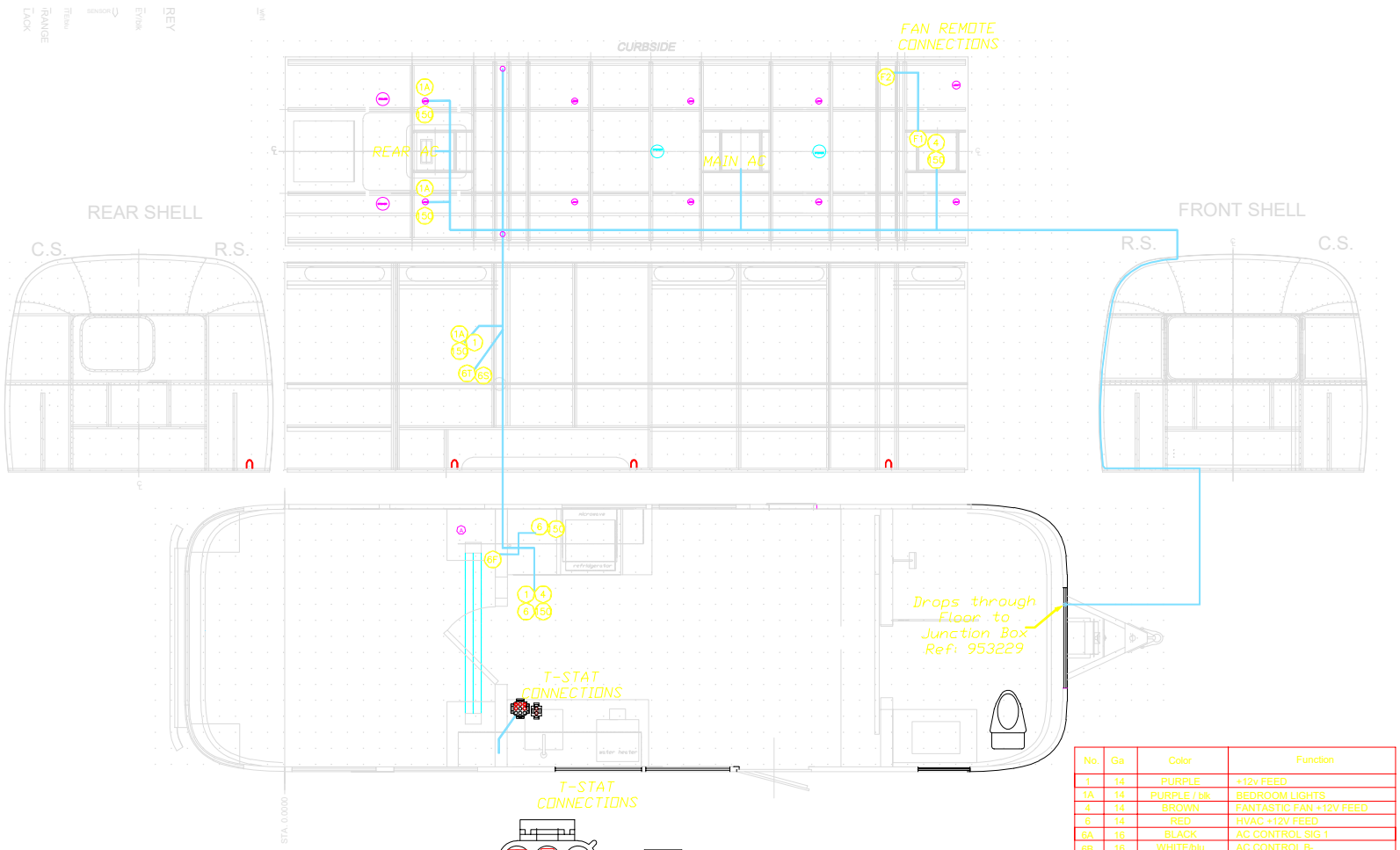
	CURBSIDE					
SYMBOL	DESCRIPTION	FROM STA '0'	TO FLOOR	TO C.L.	MOUNT RECEPT.	INSTALL ON OPT.
*	SKIN ENTRY (MOUSE HOLE)	131"	ON FLOOR	*	*	*

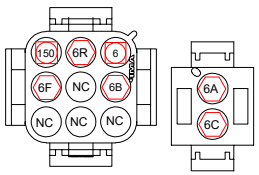
No.	Ga	Color	Function
8	16	GREY	BLUETOOTH DEV. PWR.
9	16	ORANGE	AMP SWITCH & USB POWER
14	10	RED	AMPLIFIER POWER
17	16	RED	LFT. TURN & STOP
18	16	GREEN	TAIL, CLRNCE LTS
19	16	BROWN	RT. TURN & STOP
67	16	BLUE/WHITE	AMPLIFIER REMOTE
150	16	WHITE	GROUND
150A	10	BLACK	AMPLIFIER GROUND

ITEM	PART NUMBER	DESCRIPTION	QTY.	UM

TOLERANCES: FX
NEXT ASS'Y: *
Airstream
DRAWN BY: Joey R
APPROVED BY:
FIRST USAGE: 2018 30' AUTOCAMP
TITLE: 12VDC LOC/ROUTING, RS BODY HARNESS
SCALE: NTS
DATE: 4/12/17
DRAWING NUMBER: 953342S3
REV: D

ATTACHMENT 7





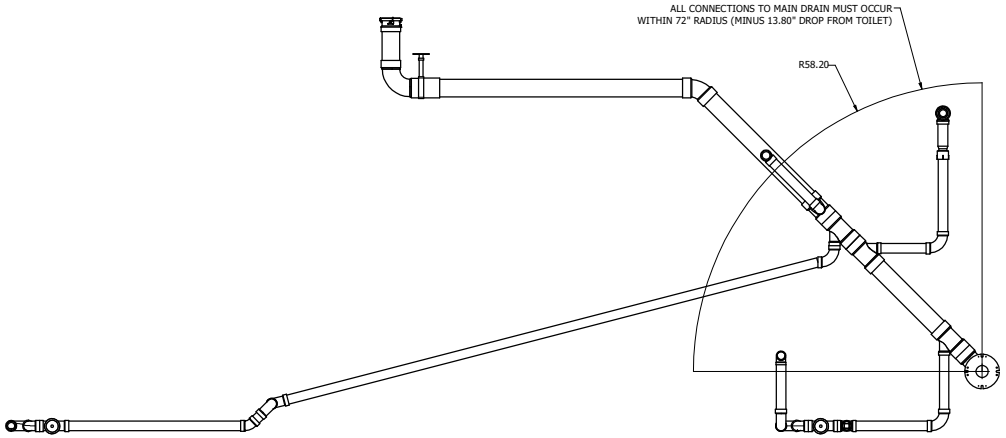
No.	Ga	Color	Function
1	14	PURPLE	+12v FEED
1A	14	PURPLE / blk	BEDROOM LIGHTS
4	14	BROWN	FANTASTIC FAN +12V FEED
6	14	RED	HVAC +12V FEED
6A	16	BLACK	AC CONTROL SIG 1
6B	16	WHITE/blu	AC CONTROL B-
6C	16	ORANGE	AC CONTROL SIG 2
6F	16	BLUE	T-STAT FURNACE RETURN
6R	16	RED/wht	AC CONTROL R+
6S	18	GREY	TEMP SENSOR
6T	18	GREY/blk	TEMP SENSOR -
150	*	WHITE	GROUND

NOTES:
1. GRID MARKS ARE 6" APART AND FOR REFERENCE ONLY.

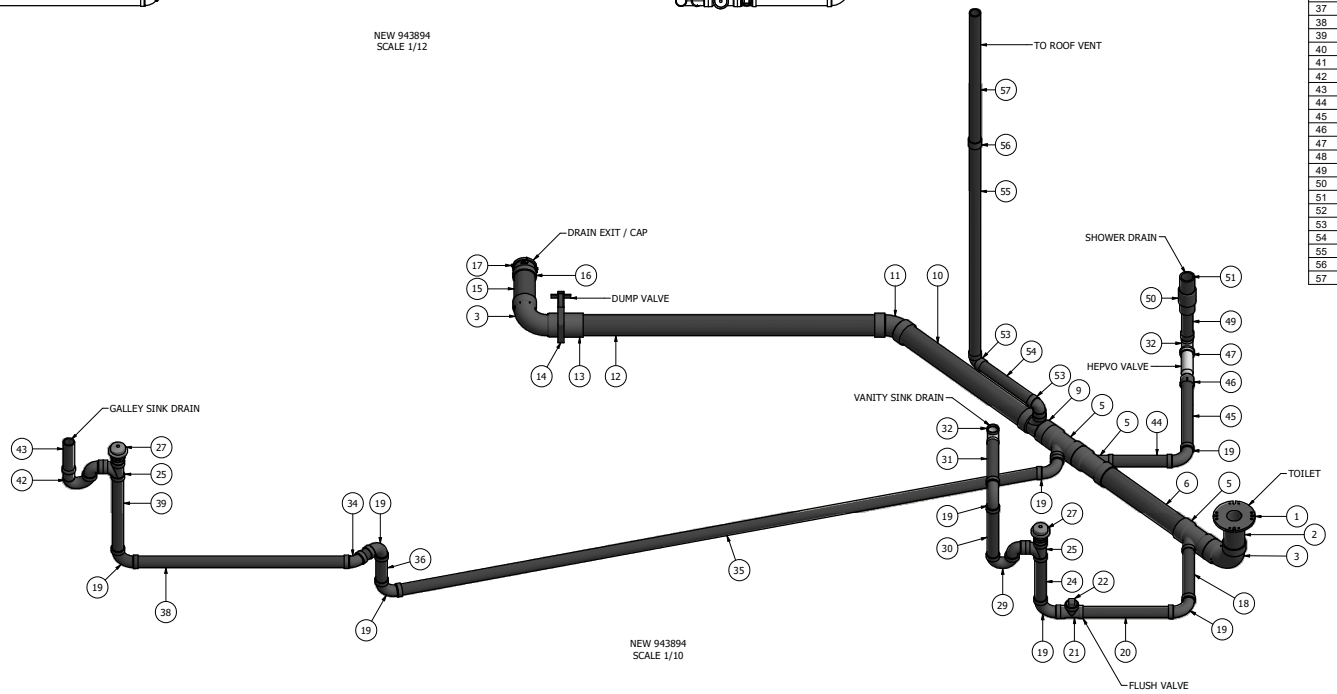
ITEM	PART NUMBER	DESCRIPTION
TOLERANCES ± *	Airstream	
NEXT ASSY *	FIRST USAGE: 2020 AUTOCAMP B MODEL	
TITLE	12VDC LOC/ROUTING, RS CEILING	
SCALE N.T.S.	DATE 10/30/19	DRAWING NUMBER 953589

ATTACHMENT 7

943894



NEW 943894
SCALE 1/12



NEW 943894
SCALE 1/10

ITEM	PART #	STOCK #	DESCRIPTION	QTY	AMT PER	UM
1	601266	601266	FLANGE CLOSET , 3 X 4, SLIP FIT	1	1	EA
2	943894-01	601161-04	3" PIPE X 6.50" LENGTH	1	0.55	FT
3	630714	630714	3" ELBOW 90 DEGREES	2	1	EA
4	943894-02	601161-04	3" PIPE X 2.50" LENGTH	1	0.21	FT
5	602581	602581	3" WYE WITH 1.5" INLET	3	1	EA
6	943894-03	601161-04	3" PIPE X 20.25" LENGTH	1	1	EA
7	943894-04	601161-04	3" PIPE X 2.50" LENGTH	1	0.21	FT
8	943894-05	601161-04	3" PIPE X 2.50" LENGTH	1	0.21	FT
9	602580	602580	3" TEE WITH 1.5" OUTLET	1	1	EA
10	943894-06	601161-04	3" PIPE X 31" LENGTH	1	2.59	FT
11	602281	602281	FITTING-3.00"-ABS-45D ELBOW-HxH	1	1	EA
12	943894-07	601161-04	3" PIPE X 52" LENGTH	1	4.34	FT
13	600253	600253	COUPLER, 3"	1	1	EA
14	601607-14	601607-14	DUMP VALVE, ROTATING	1	1	EA
15	943894-08	601161-04	3" PIPE X 8" LENGTH	1	0.67	FT
16	601607-06	601607-06	TERMINATION ADAPTOR, 3" HUB X 3" BAY	1	1	EA
17	601607-07	601607-07	TERMINATION CAP - 3" BAY	1	1	EA
18	943894-09	601160-02	1.5" PIPE X 12.25" LENGTH	1	1.03	FT
19	600035	600035	ELBOW, 90 DEG, ABS LONG SWEEP	8	1	EA
20	943894-10	601160-02	1.5" PIPE X 15.75" LENGTH	1	1.32	FT
21	601381	601381	1.5" CLEANOUT TEE	1	1	EA
22	600155	600155	CLEANOUT PLUG - 1 1/2"	1		
23	943894-11	601160-02	1.5" PIPE X 1" LENGTH	1	0.09	FT
24	943894-12	601160-02	1.5" PIPE X 10.75" LENGTH	1	0.90	FT
25	600156	600156	TEE - SANITARY - 1 1/2"	2	1	EA
26	943894-13	601160-02	1.5" PIPE X 1" LENGTH	1	0.09	FT
27	602306	602306	2" AIR ADMITTANCE VALVE - AYRLETT	2	1	EA
28	943894-14	601160-02	1.5" PIPE X 1" LENGTH	1	0.09	FT
29	600144	600144	STEP AP203	1	1	EA
30	943894-15	601160-02	1.5" PIPE X 12" LENGTH	1	1.00	FT
31	943894-16	601160-02	1.5" PIPE X 10" LENGTH	1	0.84	FT
32	690603-02	690603-02	ADAPTER - ANGLE - HEPVO	2	1	EA
33	943894-17	601160-02	1.5" PIPE X 1" LENGTH	1	0.09	FT
34	600030	600030	ELBOW, 45 DEG, ABS	1	1	EA
35	943894-18	601160-02	1.5" PIPE X 111" LENGTH	1	9.25	FT
36	943894-19	601160-02	1.5" PIPE X 6.50" LENGTH	1	0.55	FT
37	943894-20	601160-02	1.5" PIPE X 2.50" LENGTH	1	0.29	FT
38	943894-21	601160-02	1.5" PIPE X 36" LENGTH	1	3.00	FT
39	943894-22	601160-02	1.5" PIPE X 18" LENGTH	1	1.50	FT
40	943894-23	601160-02	1.5" PIPE X 1" LENGTH	1	0.09	FT
41	943894-24	601160-02	1.5" PIPE X 1" LENGTH	1	0.09	FT
42	602164-01	602164-01	P-TRAP W/ COMPRESSION NUT	1	1	EA
43	943894-25	601160-02	1.5" PIPE X 6" LENGTH	1	0.50	FT
44	943894-26	601160-02	1.5" PIPE X 10.50" LENGTH	1	0.88	FT
45	943894-27	601160-02	1.5" PIPE X 16" LENGTH	1	1.34	FT
46	600308	600308	ADAPTER ABS FEMALE SLOAN #2891	1	1	EA
47	690603-01	690603-01	WASTE VALVE, HEPVO, HYGIENIC S/S	1	1	EA
48	601676	601676	ADAPTER, 1 1/2" SPIGOT X 1 1/2" MPT	1	1	EA
49	943894-28	601160-02	1.5" PIPE X 8" LENGTH	1	0.67	FT
50	602587	602587	1.5" TO 2" RUBBER BOOT	1	1	EA
51	943894-29	601160-03	2" PIPE X 3" LENGTH	1	0.25	FT
52	943894-30	601160-02	1.5" PIPE X 1" LENGTH	1	0.09	FT
53	600033	600033	ELBOW VENT, 90D	2	1	EA
54	943894-31	601160-02	1.5" PIPE X 13" LENGTH	1	1.09	FT
55	943894-32	601160-02	1.5" PIPE X 50" LENGTH	1	4.17	FT
56	600227	600227	COUPLING 1.50"	1	1	EA
57	943894-33	601160-02	1.5" PIPE X 30" LENGTH	1	2.50	FT

REV	DATE	PCR	DESCRIPTION	BY
A	1/10/2020	CV-AC20	ADDED LONG SWEEP ELBOWS, EXTRA HEPVO ELBOW	GXB
-	11/14/2018	CV-AC19	INITIAL RELEASE	GXB

UNLESS OTHERWISE SPECIFIED
GENERAL TOLERANCES APPLY
X.XXX +/-.005
X.XX +/-.01
X.X +/-.03
X/X +/-1/4
X° +/-5°

AIRSTREAM

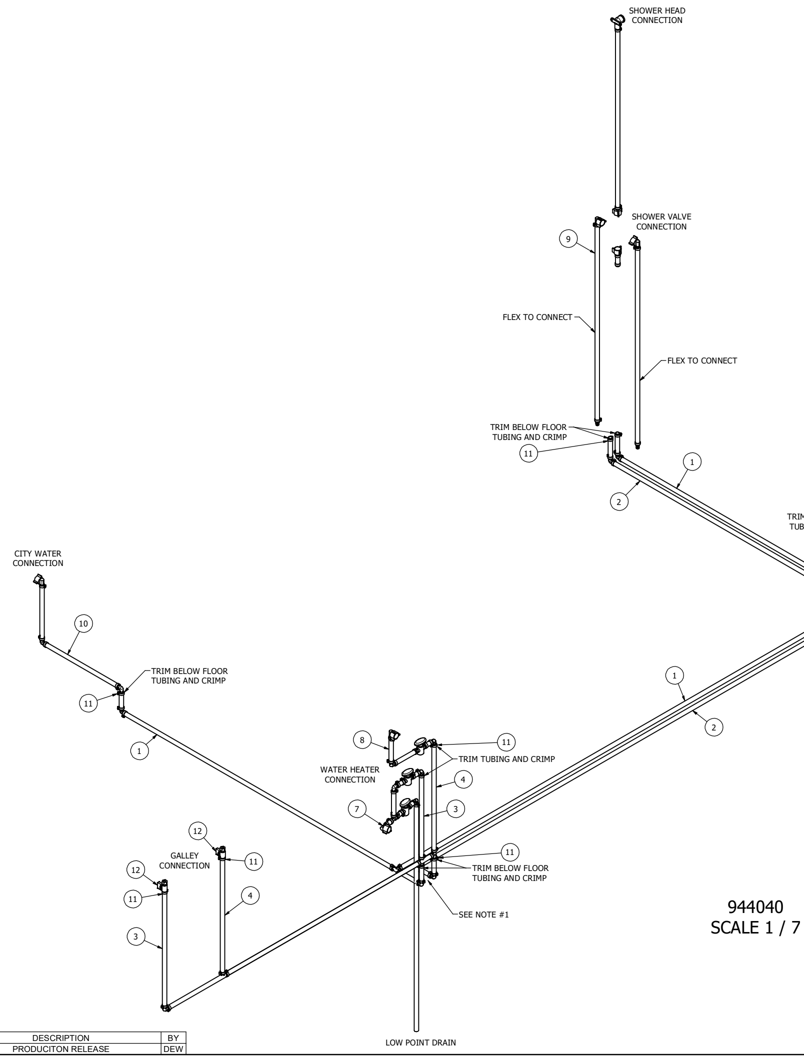
DRAWN DATE: 1/10/2020	STATUS: Work In Progress	SHEET: 1 OF 2	
DESIGNER: gbedalli	FIRST LOADED: AUTOCAMP 2019		
DETAILED: gbedalli	PART DESCRIPTION: DRAINAGE SYSTEM		
CHECKED BY:			
SIZE: D	THIRD ANGLE	PART NUMBER: 943894	REV: A

C:_Vault Working Folder\Designer\Sketch Pads\Gregory Bedalli Sketchpad\AUTOCAMP 2019\NEW 943894.iam

ATTACHMENT 7

944040

944040|LAYOUT - FRESH WATER SYSTEM						
ITEM	PART #	STOCK #	DESCRIPTION	QTY	AMT PER	UM
1	944040-01	944040-01	LAYOUT - COLD BELOW FLOOR	1	1	EA
2	944040-02	944040-02	LAYOUT - HOT - BELOW FLOOR	1	1	EA
3	944040-03	944040-03	LAYOUT - COLD - GALLEY	1	1	EA
4	944040-04	944040-04	LAYOUT - HOT - GALLEY / WATER HEATER	1	1	EA
5	944040-05	944040-05	LAYOUT - COLD - LAVY / TOILET	1	1	EA
6	944040-06	944040-06	LAYOUT - HOT - LAVY	1	1	EA
7	944040-07	944040-07	LAYOUT - COLD - WATER HEATER	1	1	EA
8	944040-08	944040-08	LAYOUT - HOT - WATER HEATER	1	1	EA
9	944040-09	944040-09	LAYOUT - COLD / HOT - SHOWER	1	1	EA
10	944040-10	944040-10	LAYOUT - CITY WATER	1	1	EA
11	601698-15	601698-15	1/2 CRIMP RING #14785	11	1	EA
12	602137	602137	VALVE-SHUT OFF 1/2 BARB x 3/8 COMP	2	1	EA
13	944040-1	601698-12	PEX PIPE - 3/4" x 20' - WHITE	1	3.25	FT
14	944040-2	602848	SHARKBITE 3/4" x 3/4" MNPT ADAPTER	1	1	EA
15	340085-06	340085-06	CLAMP - LOOP - STEEL W/ RUBBER - 3/4"	1	15	EA



944040
SCALE 1 / 7

NOTES:

1. INSTALL ITEM #13 (39.00") AND ITEM #14 THROUGH THE FLOOR AND CONNECTED TO THE WATER HEATER PRESSURE RELIEF VALVE AT THE LOCATION NOTED BY THE NOTE CALLOUT. (ALONG SIDE THE LOW POINT DRAIN)

2. SUPPORT WATER LINES EVERY 3 FEET OR LESS WITH RUBBER LINE CLAMPS.

3. ALL WATER LINES ARE POLYBUTYLENE UNLESS NOTED.

REV	DATE	PCR	DESCRIPTION	BY
-	6/14/2022	CV-000054	PRODUCITON RELEASE	DEW

UNLESS OTHERWISE SPECIFIED GENERAL TOLERANCES APPLY
X.XXX = +/-.015
X.XX = +/-.06
X.X = +/-.13
X/X = +/-1/4
X° = +/-5°

AIRSTREAM

DRAWN DATE: 6/14/2022	STATUS: Released	SHEET: 1 OF 1
DESIGNER: DEW	FIRST USAGE: AUTOCAMP 2022	
DETAILER: DEW	PART DESCRIPTION: LAYOUT - FRESH WATER SYSTEM	
CHECKED BY: DEW		
SIZE: D	THIRD ANGLE	PART NUMBER: 944040 — REV: -

C:_Vault Working Folder\Designs\Sketch Pads\Walter-Sketch Pad\AUTOCAMP\FRESHWATER-LAYOUT\944040.iam

ATTACHMENT 7

Cleaning the exterior - Annual
Regular washing of the outside of the Airstream is essential to keep it in good condition. You should wash the exterior of the Airstream not less than every month and apply wax in the Spring and Autumn. In coastal areas where the finish is exposed to salt air, or in polluted industrial areas, we recommend more frequent cleaning and waxing.

This is especially necessary for any units transported in the winter to remove road salt. Salt left on the body/shell will speed corrosion of sharp edges of aluminum where the clearcoat weathers quickest.

It is also important to remove sap, resin, asphalt and other sticky residues as soon as possible after they appear by washing and waxing. Sunlight and time will bake harden these materials, making them almost impossible to remove without heavy buffing.

Wash the Airstream in the shade, or on a cloudy day when the aluminum is cool. Pre-rinse. First rinse all grit and large particles of dirt from the surface. Spray all surfaces with fresh water using a hose with spray attachment. Wash. Then remove oil, grease, dust and dirt by washing. It is best to again use a hose, connected to an auto style broom attachment with soft bristles (preferably with extending handle, for reaching the upper parts of the Airstream shell), thus ensuring a constant supply of fresh water onto the aluminum.

Fill a bucket with non abrasive soap or detergent (diluted according to manufacturer's instructions). Dip the broom in the soapy water as required to keep the broom head soapy and then apply to the Airstream without excessive pressure.

Brush each aluminum panel in the direction of the grain of the metal, this helps prevent any fine scratches that occur bring visible. Never rub hard on the coating.

CAUTION: Do not wash the Airstream using a sponge and bucket, each time you return the sponge to the bucket, you will transfer dirt particles into the wash water, which then will be transferred to the sponge and scratch the aluminum as you rub the sponge on the Airstream body. Do not use abrasive polishes or solvents.

Rinse. Next rinse the cleaned trailer thoroughly with clean water, using the hose with spray attachment as per the initial rinse.

Dry. Drying with chamois or soft cloth may prevent streaking and spots. When drying or applying polish, always wipe with the grain of the metal.

Wax. After washing and drying, applying a wax will increase the life of the finish, protect the shell from minor scratches and make subsequent cleaning easier. Airstream recommends Walbernize wax.

Calking Inspection - Annual

The caulking and sealant used in external seams and joints such as end shell segments and around window frames, light bezels, the rub rail (at floor level) etc. should be checked regularly. If this material has dried out and become cracked, or if a portion has fallen out, it should be replaced with fresh materials to prevent possible rain leaks. Caulking and sealants are available from an Airstream dealer.

TIP: Internal inspection following external washing is good practice to check for any possible leaks. Clues would be water running down the internal surfaces or pooling on flat surfaces.

Corrosion protection - Annual

It is recommended to apply corrosion protection to metal parts annually. CorrosionX works well for the aluminium parts and Beoshield T9 for the steel (underside) parts. The CorrosionX can be purchased in aerosol form in 2 strengths, standard (green colour) or HD (red colour), we recommend the green. Spray it onto a clean non abrasive cloth, then use that cloth to wipe cast alloy parts (tail light bezels, door hinges, etc) and cut edges of all the aluminium panels and the adjacent rivet lines. If the coating applied with the cloth is fairly light, it will not be too unsightly and the any residue can be left for added protection (and it will gradually weather away). If a clean up is necessary, a cleaner is available from the same company. In a coastal sand dune environment, I would do this targeted corrosion protection twice annually as part of your annual maintenance. The Beoshield T9 is also an aerosol and can be sprayed on chassis parts like the painted hitch/ A frame, rear bumper supports, axle mounting plates etc.

ATTACHMENT 7

Window Seals - Annual
We recommend applying 303 Aerospace Protectant (Airstream part # 44845WR-01)to the window seals annually to prevent them from drying out. If the seals dry out this can lead to windows sticking and becoming difficult to open. If a window is sticking, first wash the gasket with mild soap and water, allow to dry, then apply the 303 Aerospace Protectant.

Leveling – Initial setup or if trailer is moved
First, block or chock the tires to keep the trailer from rolling. The pads the trailers are placed on should be level side to side, so leveling should be limited to fore-aft. This is done using the tongue jack. Level the trailer before deploying stabilizer jacks on the four corners. If the stabilizers are deployed retract them. Raising or lowering the tongue jack with the stabilizers deployed will damage the stabilizers.

Place a level on the floor inside the door, then raise or lower the tongue jack to level the trailer front to back.

Once the trailer is level, stabilizers can be deployed onto the paver pads specified.

Note: the stabilizer jacks SHOULD NOT BE USED TO ATTEMPT TO LEVEL THE TRAILER. They are for stabilizing the trailer after it is in place, to eliminate the natural motion of the suspension.

ATTACHMENT 7

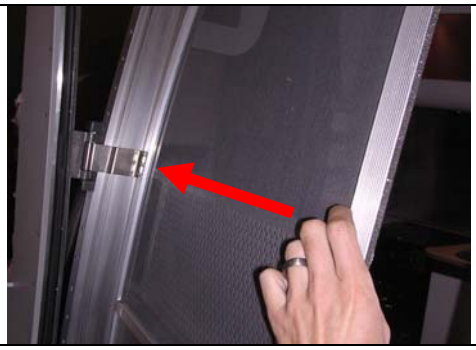
Airstream – instructions for main door adjustment **June 2009**

Before undertaking any main door adjustments, ensure the trailer is on level ground, then raise or lower the jockey wheel so the trailer is level (front to rear). Do not lower the corner steadies, or otherwise jack the trailer.

A – Screen door

First check the fit of the screen door. If this is not fitting properly, this can interfere with the main door closing action, so the screen door fit should be checked first and adjusted if necessary. *Poor screen door fit is usually caused by customers pulling/ leaning on the screen door as they enter/ exit the trailer.*

Step 1. Close the screen door. Does the frame of the screen door hit the deadbolt in the main door frame? *If it does, proceed with Step 2.*



Step 2. Open the screen door about 12"/300mm and gently push it towards the upper and lower hinges, to move the screen door frame away from the deadbolt of the main door frame.

Step 3. Open the screen door about 2ft/ 600mm. Swing it gently to close it. If the fit is correct, the screen door catch should engage and hold the screen door closed. *If the screen door catch does not engage easily and the door springs back out, then adjustment is required – see Step 4.*

Step 4. Insert a small wood block as shown in turn to the upper and then lower hinges, slightly closing the screen door on the wooden block, to adjust the shape of the L shaped screen door hinge.

Step 5. Close the screen door. Gently tap the screen door hinges against the main door frame, so they follow the profile of the door frame. DO NOT USE EXCESS FORCE! A square head hammer protected with tape is the ideal tool for this.

Step 6. If the bottom of the screen door is catching on the bottom of the door frame, pull the base of the screen door out slightly.

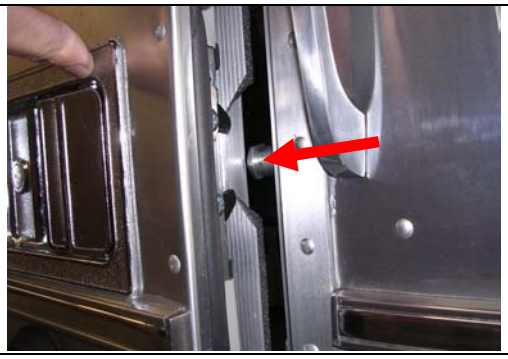
ATTACHMENT 7

Airstream – instructions for main door adjustment **June 2009**

B1 – Main door – deadbolt alignment

If the main door needs to be slammed to be closed, check whether the deadbolt in the door frame is centred on the jaws of the main door lock:

Step 1. Open the main door and identify the jaws to the main lock, see above photo. Then close the main door so it is just ajar and lower your head to the level of the main lock.



Step 2. Check whether the deadbolt in the door frame (highlighted with the red arrow) lines up between the 2 jaws of the lock. If the deadbolt is not exactly centre, see *Step 3* to adjust its height.

Step 3. Loosen the deadbolt (which has a hexagonal head) by turning a wrench anti clockwise.

Step 4. If the deadbolt needs to be moved more than 3mm (1/8”), drill out the pop rivet below the deadbolt.

Step 5. Tap the deadbolt up or down as required, the ideal tool being a cold chisel with notch ground out, see photo.

Step 6. Once the deadbolt is centred on the jaws of the lock, re-tighten the deadbolt, then re-drill the hole for the pop rivet and install an aluminium pop rivet.

Step 7. Lubricate the jaws of the main lock using graphite powder.

ATTACHMENT 7

Airstream – instructions for main door adjustment **June 2009**

B2 – Main door – curvature adjustment

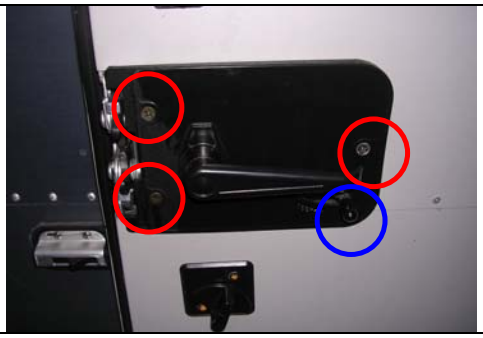
Check the door fits the curve of the Airstream shell. Each Airstream shell is slightly different due to the hand made nature of the product. Doors are adjusted during production, but door curvature can sometimes need adjusting again when the trailer is in service.

Step 1. Open the main door so it is just ajar. Check whether the gap between the door and frame at the top of the door……..

…….is the same or similar to the gap at the bottom of the door… *If the gap at the top is wider, proceed with Step 2.*

IMPORTANT NOTE FOR TRAILERS WITH A WINDOW TO THE UPPER PART OF THE ENTRANCE DOOR! **The rivets holding the upper inner skin of the door MUST be removed before any adjustment of the door curvature is made.** Otherwise adjustment will crease the inner skin above and below the window and once creased, the only option is replacement of the door inner skin.

Step 2. Remove the screws holding the inside trim of the window frame around the window and remove the trim.



Step 3. Remove the internal plate of the main door lock, by removing the 3 screws (circled red above) and the rubber cap (circled blue) to the lock lever.

Step 4. Drill out all the pop rivets circled in red above holding the upper inner skin in place. Just the rivets circled blue over the top of the door can be left in situ.

You can then proceed with adjusting the door curvature. There are a number of ways to adjust the curvature, *see Steps 5-7.*

Step 5. With the screen door closed, insert a 100x50mm wooden block between the door and frame.

For example, if you need to align the top of the door closer to the frame, insert the wooden block at the base of the door, then push the top of the door in.

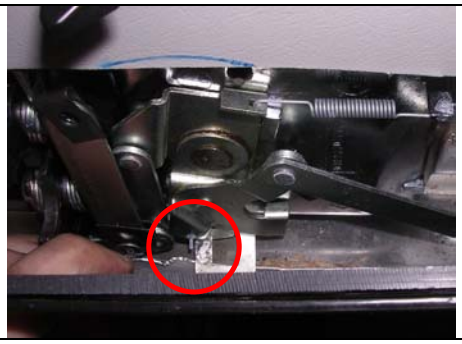
Step 6. Alternatively to align the top of the door closer to the frame, have someone gently pull the door of the door towards them as shown above, whilst at the same time pushing the bottom in. Hold the door in this position. The more force applied, the more the door curvature will be altered.

Step 7. Whilst the door is being held, re-drill the horizontal layer of rivet holes where the upper and lower inner panels of the door meet. Install pop rivets.

Step 8. Close the door so it is ajar and check the door curvature, has the gap at the top of the door become smaller so it matches the gap at the bottom of the door?

Step 9. Then re-drill the remaining rivet holes and install pop rivets, making sure the upper inner skin of the door is pulled tight in all places.

Step 10. Re-fix the inner trim of the window frame.



Step 11. Re-fix the internal plate of the main door lock. Align the moving part of the handle so it fits into the lock mechanism as shown in the above photo.

You are finished!

ATTACHMENT 7

Airstream Winterization

Open all faucets to cold (kitchen, bathroom, shower)

Open all valves as shown to let water drain from lines.

Once water as stopped draining, switch all faucets to hot.

Once water has stopped draining close faucets and use a compressor connected to the city water inlet to blow out any remaining water. (no more than 50psi)

RV ComfortSystems LLC.
www.rvcomfortsystems.com

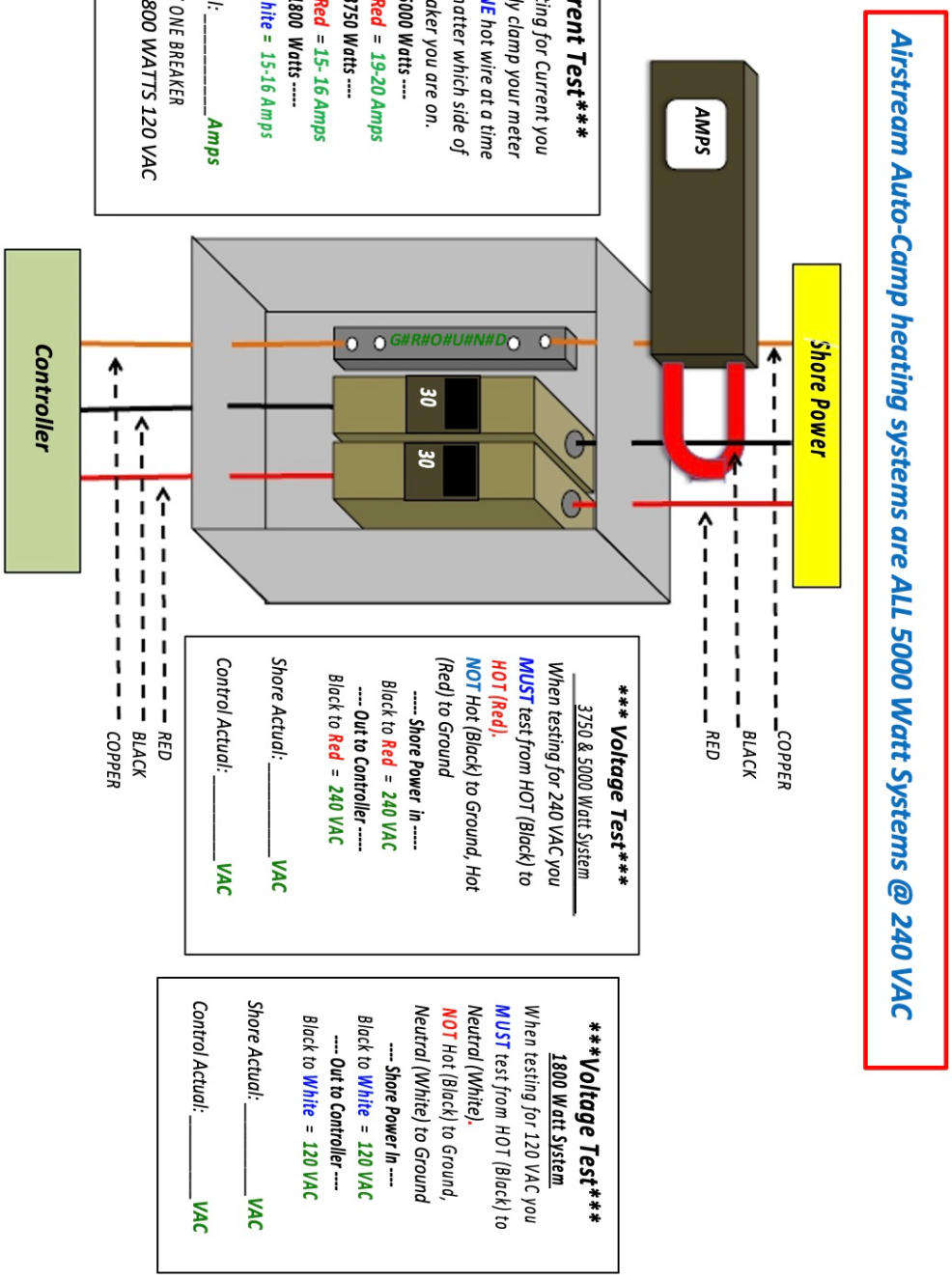
ATTACHMENT 7

CheapHeat™

Troubleshooting the CheapHeat™ All Electric Furnace

----------CAUTION----------

Only qualified service technicians should preform these test
BE sure to adhere to all NEC safety precautions when preforming these test
DO NOT RUN ELECTRIC HEATER WITHOUT FAN RUNNING



ATTACHMENT 7

----------CAUTION----------

Only qualified service technicians should preform these test

BE sure to adhere to all NEC safety precautions when preforming these test

DO NOT RUN ELECTRIC HEATER WITHOUT FAN RUNNING

READ LEABELING ON PC BOARD TO CONFIRM YOU ARE TESTING THE CORRECT WIRES

For this Heat on test the inside temperature must be 72 F Deg or less. If you can't keep the space 72 F or bellow during testing JUMPER OUT THE HI TEMP LOCK OUT SENSOR IN THE RETURN AIR CAVITY.

LOW'VOLTAGE

** Heat Calling (ON)**

Black to Orange ----------12 VDC

Black to Red ----------12 VDC

Black to Blue ----------12 VDC

'Heat Not Calling (OFF)

Black to Orange --------- 12 VDC

Black to Red ----------Zero VDC

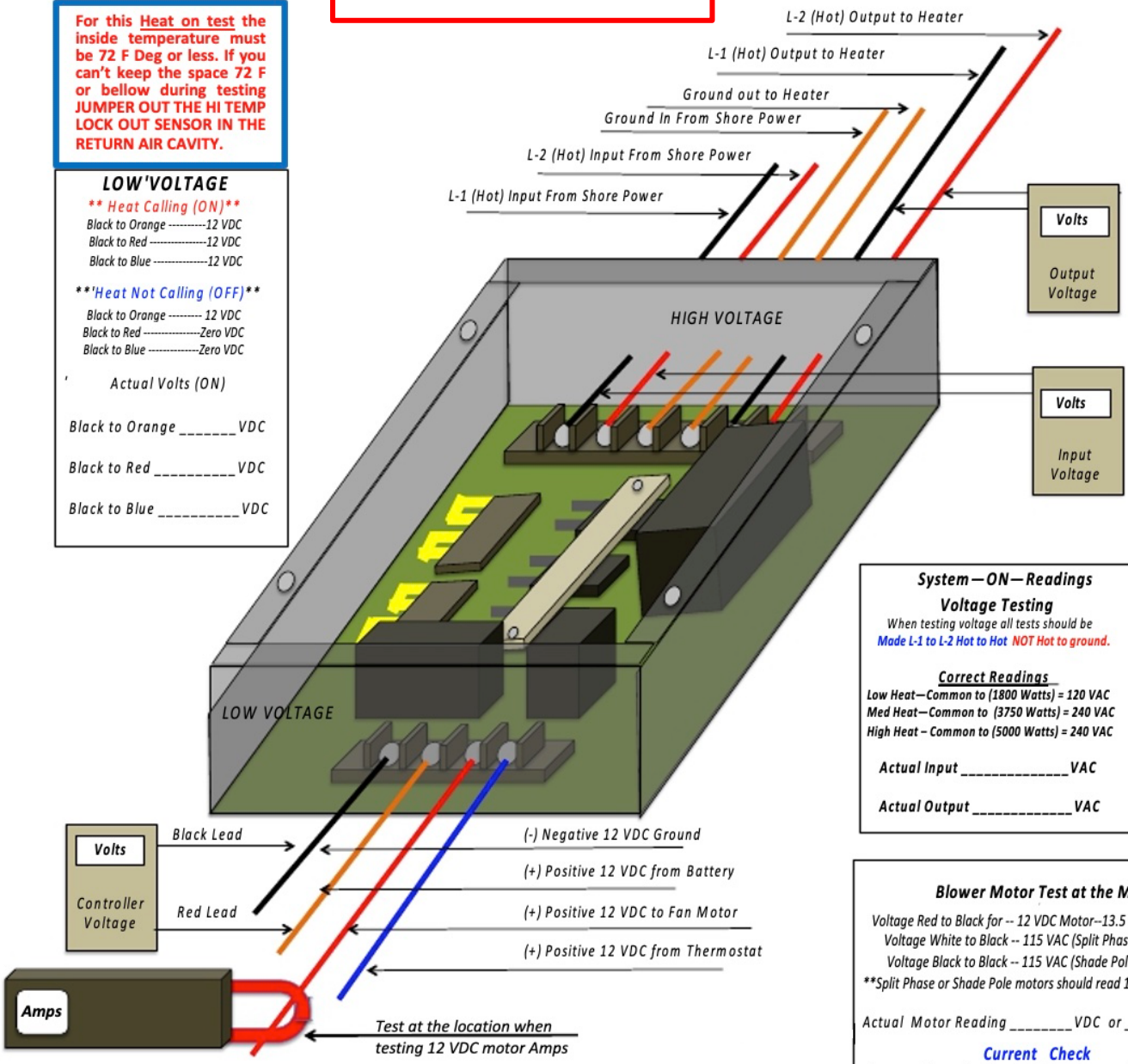
Black to Blue ----------Zero VDC

Actual Volts (ON)

Black to Orange _____VDC

Black to Red _____VDC

Black to Blue _____VDC



System—ON—Readings

Voltage Testing

When testing voltage all tests should be

Made L-1 to L-2 Hot to Hot NOT Hot to ground.

Correct Readings

Low Heat—Common to (1800 Watts) = 120 VAC

Med Heat—Common to (3750 Watts) = 240 VAC

High Heat – Common to (5000 Watts) = 240 VAC

Actual Input _____VAC

Actual Output _____VAC

Blower Motor Test at the Motor

Voltage Red to Black for -- 12 VDC Motor--13.5 to 14.1 VDC

Voltage White to Black -- 115 VAC (Split Phase Motor)

Voltage Black to Black -- 115 VAC (Shade Pole Motor)

Split Phase or Shade Pole motors should read 115 -120 VAC

Actual Motor Reading _____VDC or _____VAC

Current Check

Furnace Manufactures Rating_____ Amps

Actual Current Reading _____ Amps

ATTACHMENT 7

READ LEABELING FOR TERMINAL BLOCK TO CONFIRM YOU ARE TESTING THE CORRECT WIRES

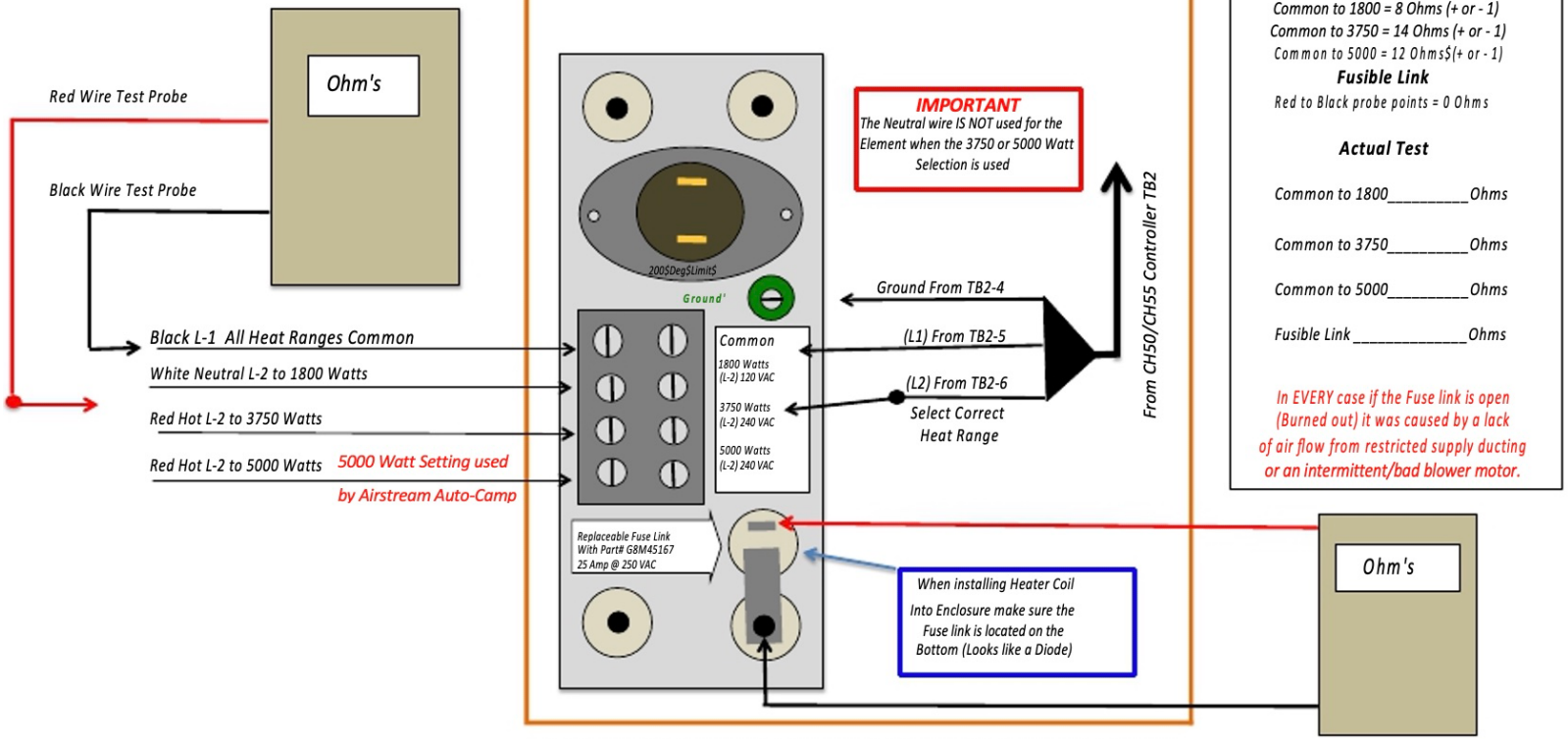
----------CAUTION----------

Only qualified service technicians should preform these test

BE sure to adhere to all NEC safety precautions when preforming these test

DO NOT RUN ELECTRIC HEATER WITHOUT FAN RUNNING

******WHEN TESTING RESISTANCE MAKE SURE ALL POWER IS TURNED OFF******



Resistance'Tes6ng'

Common to 1800 = 8 Ohms (+ or - 1)

Common to 3750 = 14 Ohms (+ or - 1)

Common to 5000 = 12 Ohms$(+ or - 1)

Fusible Link

Red to Black probe points = 0 Ohms

Actual Test

Common to 1800_____Ohms

Common to 3750_____Ohms

Common to 5000_____Ohms

Fusible Link _____Ohms

In EVERY case if the Fuse link is open (Burned out) it was caused by a lack of air flow from restricted supply ducting or an intermittent/bad blower motor.

INSTALLATION, OPERATION & APPLICATION GUIDE

for 9330-33*

MULTIPLE ZONE THERMOSTAT CONTROLLER SYSTEM

*Last digit represents specific model number

RV Products
A Division of AIRXCEL, Inc.

Note: Thermostat may be black with white markings or white with gray markings as shown.

Caution

This thermostat should be installed and programmed by trained technicians only. Adhere to all local and national codes. Disconnect all power to the system before installing, removing, or cleaning.

Application

The **9330-33*** zone thermostats create a climate control system that allows the operator to control up to four air conditioners or heat pumps and up to two heating sources with only one thermostat.

The thermostat system will operate in both heat and cool modes, but will not allow the user to run simultaneously in heat and cool mode. Depending on the system that has been installed and programmed into the thermostat, each zone can be set up for a combination of the following systems: cool only units, heat/cool units, heat pump units and heating appliances.

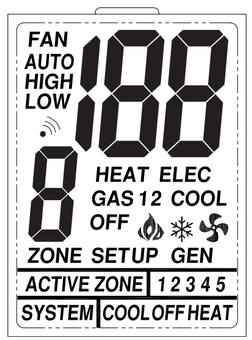
This thermostat will work with any **RV Products** air conditioner that is controlled with an **RV Products** zone control box.

A zone is an area of a motor coach that is climate controlled. This system can control up to four zones in a motor coach.

Operation

All **9330-33*** thermostats function identically. The only difference is the color of the thermostat.

Description of Controls: Liquid Crystal Display (LCD)



The LCD display screen is the main interface between the user and the thermostat. This will display which zone the user is looking at. When the system is first powered up, the thermostat determines how many zones are connected to the system and only displays the zones detected.

The LCD also displays the mode that the particular zone is currently in. These will range from Cool Auto, Cool High, Cool Low, Fan High, Fan Low and Off in cooling, and from Gas Heat, Heat Elec (heat pump or electric strip heat) and Off in heating.

Also, the LCD displays the room temperature and setpoint temperature in the displayed zone. If the word Set is shown, then the setpoint or desired temperature is shown. If the word Set is not shown, then the temperature shown is the actual room temperature in the displayed zone.

Note: *The thermostat is designed to display temperatures from 41°F to 110°F however it will operate from -40°F to +175°F. If temperature is between -40°F and 41°F then 41 will be displayed as the room temperature. Also if the temperature is between 110°F and 175°F then 110 will be displayed. When temperature extremes fall outside the operating limits of the thermostat, "Er" will display in the temperature space of the LCD to show that current ambient temperature has exceeded thermostat capabilities. Additionally, if there is a problem with one of the remote temperature sensors, "Er" will display on the thermostat.*

Note: *If the system is in cooling and is programmed to have only a heating appliance connected in a zone then the thermostat will still display the room temperature in that zone. But the user will not be able to operate any cooling appliance in that zone because there is not one connected in that zone. Additionally, if the system is in heating and is programmed to have only a cooling appliance connected in a zone then the thermostat will still display the room temperature in that zone, but the user will not be able to operate any heating appliance in that zone because there is not one connected in that zone. Your homeowner packet should contain literature that will list what heating and cooling appliances are installed in each zone of your motor home.*

Setpoint Buttons

The Setpoint buttons are located to the right and below of the LCD display. These buttons adjust the desired temperature setpoint up and down. To change the setpoint press **UP** or **DOWN** once. This displays the word Set on the LCD and puts the system in the mode to change the setpoint. Then, each press of the **UP** or **DOWN** changes the setpoint up or down for the displayed zone by one degree per press of the button.


Up button

Down button

The setpoints are not adjustable when the thermostat is turned off. Also setpoint is not adjustable for the displayed zone when the displayed zone is set to run Fan High or Fan Low in that zone, or if the displayed zone is turned to Off.

The setpoints are stored permanently in memory for each zone in both heating and cooling. This allows the user to switch between heating and cooling at season changes and still have the same settings as the previous year.

SYSTEM Button

SYSTEM

The **SYSTEM** button is used to put the thermostat into either heating, cooling or off.

When in **OFF**, the system will not operate any heating or cooling appliances. However, the LCD display will still show the room temperatures in each zone.

When in **HEAT**, the system is in heating. The heating appliance selected will operate when the zone room temperature is one degree below the desired setpoint temperature. The heating appliance will continue to run until the zone room temperature is one degree above the desired setpoint temperature.

When in **COOL**, the system is in cooling. The cooling appliance connected in the particular zone will operate according to the mode the zone is set to.

ZONE Button

ZONE

This button allows the user to toggle through the different area zones.

By pressing the **ZONE** button the user toggles through each zone. When the system is first powered up, it determines how many zones are in the system and only displays the detected zones.

MODE Button

MODE

By pressing the **MODE** button, the user toggles through the different modes for the system. When in cool, the thermostat will toggle through the following modes: Cool Auto, Cool High, Cool Low, Fan High, Fan Low and Off. When in heat, the thermostat will toggle through the following modes: Gas Heat, Heat Elec and Off. However, this will only happen if the system has both gas and electric heat in a zone. For instance, if a system only has an air conditioner and a gas furnace in a zone, then when set to heat, the user will only be able to toggle through Gas Heat and OFF because there is not electric heat available. Furthermore, if the system does not have an appliance connected in a zone, then the user will not be able to toggle modes in that zone.

Setting the Thermostat

The thermostat default setting for each zone upon initial startup is 78°F for cooling and 68°F for heating. The fan speed for the cooling mode is **COOL AUTO**, which is set to vary the fan speed according to the cooling needs. The fan speed for the heating mode is dependent on the type of heat that is installed for each zone and can not be changed.

Note: *The temperature setpoint cannot be adjusted in the following situations: when in **OFF**, when the zone is turned off for either heating or cooling mode or when the fan is set to be running continuously in either high or low speed.*

Set Temperature

1. Use the **SYSTEM** button to select either **COOL** or **HEAT**. The current room temperature for that zone will display.
2. Press the **MODE** button to select the operation your desire.
3. Press either the **UP** or **DOWN** arrow once to place the thermostat in the **SET** mode. At this point the thermostat displays the current setpoint for the displayed zone. (**SET** will show on the LCD display).
4. Press the appropriate arrow button to change the set point temperature to the desired setting. Each press of the up arrow will increase the setpoint temperature by one degree. Each press of the down arrow will decrease the setpoint temperature by one degree.
5. Pressing **ZONE** button to toggle to the next zone or letting the thermostat sit idle for a few seconds will store the temperature setting in the thermostat memory.
6. This process should be done for each zone.

Changing Temperature Scale

Press both **SYSTEM** and **MODE** buttons in for 5 seconds. Temperature changes from °F to °C or °C to °F.

Set Fan Speed for Cooling Mode

1. Use the **SYSTEM** button to select cool option.
2. Pressing the **MODE** button will toggle through the available speeds.
   - "**COOL AUTO**" setting allows the fan speed to vary depending on the cooling needs. This is the default setting.
   - "**COOL HIGH**" or "**COOL LOW**" setting will set the fan speed to run continuously at high or low, but the upper unit will cycle when cooling is needed.
   - "**FAN HIGH**" and "**FAN LOW**" setting will set the fan to run continuously at high or low speed. The upper unit will not run to produce cooling. Setpoint is not adjustable in this mode.
   - "**OFF**" will turn the upper unit off for zone displayed. By continuing to press the "**MODE**" button, you can toggle through the settings for the zone displayed until you have determined the setting you desire. Setpoint is not adjustable in this mode.
3. Once you have established the settings for Zone 1, press the ZONE button to store settings in thermostat memory and proceed to the next zone.
4. Repeat steps for each zone.

System	Mode	Zones	Demand	Control Box HP Jumper	Operation of Unit
Off	N/A	1 - 4	N/A	N/A	No units operating in this mode, LCD is displaying temperature of zone. User can toggle thru zones to see temperature in each zone (setpoint can't be adjusted)
Cool	Cool Auto	1 – 4	No	N/A	Nothing is operating since there is no cooling demand, LCD is displaying temperature of zone
Cool	Cool Auto	1 – 4	Yes	N/A	Compressor is energized, fan is energized
Cool	Cool High	1 – 4	No	N/A	Fan high is energized
Cool	Cool High	1 – 4	Yes	N/A	Compressor is energized, fan high is energized
Cool	Cool Low	1 – 4	No	N/A	Fan low is energized
Cool	Cool Low	1 – 4	Yes	N/A	Compressor is energized, fan low is energized
Cool	Fan High	1 – 4	N/A	N/A	Fan high is energized (setpoint cannot be adjusted)
Cool	Fan Low	1 – 4	N/A	N/A	Fan low is energized (setpoint cannot be adjusted)
Cool	Off	1 – 4	N/A	N/A	Nothing operational in zone (setpoint cannot be adjusted)
Heat	Elec	1 – 4	No	Non HP	Nothing is operating in this mode since there is no heating demand
Heat	Elec	1 – 4	Yes	Non HP	Fan is energized, heat strip is energized
Heat	Elec	1 – 4	No	Hp	Nothing is operating in this mode since there is no heating demand
Heat	Elec	1 – 4	Yes	Hp	High fan energized, compressor & reversing valve energized
Heat	Gas	1 – 4	No	N/A	Nothing is operating in this mode since there is no heating demand
Heat	Gas	1 – 4	Yes	N/A	Gas heat energized
Heat	Off	1 – 4	N/A	N/A	Nothing operational in zone (setpoint cannot be adjusted)

Notes:
1) When 2nd or 3rd stage heating is activated, it stays on until setpoint is satified. When heating stage is running for more than 20 minutes without reaching setpoint then the next available heating stage will be energized.
2) The word "GAS" will display on the LCD when 2nd stage heat (low gas furnace) is operating.

Note: *There is a built-in delay between programming and operation of the new program. (Example: changing fan speed to low from high, it will take approximately 10 seconds until the fan speed is changed.) The thermostat must sit idle for five seconds before the signal is sent to the control board. The thermostat will then send the signal to the control board in the control box, then the signal is verified before the change is put into operation.*

This delay also helps to eliminate "communication noise problems".

Note: *Setting **SYSTEM** button to OFF position will shut down all unit operations.*

This table lists the operations of the thermostat system in each of the possible settings. The chart shows the operations for all types of appliances possible. All systems will not necessarily have all available options.

The chart to the left shows the system functions with the 9330-33 thermostats.*

Heat Pump Lockout

If the system has both gas heat, (LP furnace or hydronic heat) and electric heat,(electric strip heat or heatpump) appliances installed in the same zone, then the system will automatically switch from Heat Electric to Gas Heat if the electric heat can not satisfy the desired setpoint temperature. Because of the nature of the electric heating systems, they tend to be less effective the lower the outside temperature. Therefore, at low temperatures, your electric strip heat or heatpump may not be able to satisfy the setpoint. The system switches from Heat Elec to Gas Heat when the actual zone room temperature is five degrees or more below the desired setpoint temperature. If this happens three times in a row, the electric heat is locked out for two hours and the gas heat is the primary heat source. When this happens, the LCD will continue to display Elec but the word Gas will flash on the LCD to alert the user that the electric heat source is locked out. See table below for an example of how the heatpump lockout system works.

Electric heat algorithm to bring on gas furnace as 2nd stage heat (Zones 1 & 2 only).

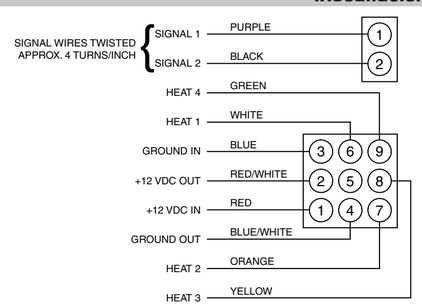
Setpoint	Indoor Temp.	Operation
70	70+	Nothing is operating
	69	Electric heat turns on (primary heat source)
	71	Electric heat turns off (thermostat satisfied)
	69	Electric heat turns on
	65	Gas furnace turns on (first strike for 2nd stage elec heat counter) *see note*
	71	Electric heat and gas furnace turn off
	69	Electric heat turns on
	65	Low gas furnace turns on (second strike for 2nd stage elec heat counter) *see note*
	71	Electric heat and gas furnace turn off
	69	Electric heat turns on
	65	Gas furnace turns on and electric heat turns off (2nd stage elec heat counter reaches 3rd strike and the electric heat is locked out for 2 hours) *see note*
	71	Gas furnace turns off (thermostat satisfied)
	69	Gas furnace turns on (becomes primary heat source)
	71	Gas furnace turns off (thermostat satisfied)
		After 2 hour lockout
	69	Electric heat turns on (resumes as primary heat source)
	65	Electric heat turns off and low gas furnace turns on (becomes primary heat source and the electric heat is locked out for another 2 hours)
	71	Gas furnace turns off (thermostat satisfied)
		After 2 hour lockout
	69	Electric heat turns on (resumes as primary heat source)
	71	Electric heat turns off (thermostat satisfied) (2nd stage elec heat counter is reset anytime the electric heat satisfies the thermostat setpoint and does not need the gas furnace)

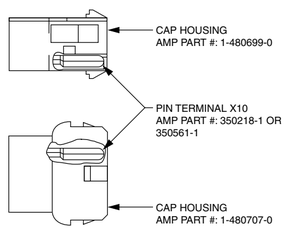
Note: The word "gas" will flash on LCD when 2nd stage heat is operating.

Installation

Wiring the System

OEM must supply these mating parts to connect these thermostats as shown below. A minimum wire size of AWG 18 must be used for this system. Check with appliance manufacturers for exact wire size needed for each appliance.





ATTACHMENT 7

Thermostat and Room Temperature Sensor Location

This system is designed to work one of two ways. A built-in temperature sensor on the thermostat can control zone 1. In this case the thermostat must be located in zone 1. On the other hand, a remote temperature sensor can be connected to zone 1. This situation would allow the thermostat to be located virtually anywhere in the coach as long as the user can get to it to operate it. Every zone other than zone 1 must always have a remote temperature sensor to control the system.

This thermostat is a sensitive instrument. For accurate temperature control and comfort, the following considerations should be taken into account when locating both remote sensors and the thermostat if the thermostat is to be used as the zone 1 temperature sensor.

1. Locate on an inside wall about five feet above the floor. Pick a dry area where air circulation is good, but not in line with exterior doors.
2. Do not install where there are unusual heating conditions, such as direct sunlight, heat producing appliances (television, radio, wall lamps, etc.) or a furnace/air conditioner supply air register.

Attaching the Wall Thermostat and Room Temperature Sensors

1. Attach the external room sensor to the wall using (2) #6 x 3/4 screws.
2. The external room sensor is wired to the two terminals marked “ROOM” on the control box low voltage strip.
3. Separate the thermostat cover from the base by gently pulling on the left and right sides.
4. Connect motor coach wiring harness to thermostat wire plug lead.
5. Attach the new thermostat base to the wall at the desired mounting location using (2) #6 x 3/4 screws.
6. Re-attach thermostat cover to thermostat after fastening thermostat to wall.

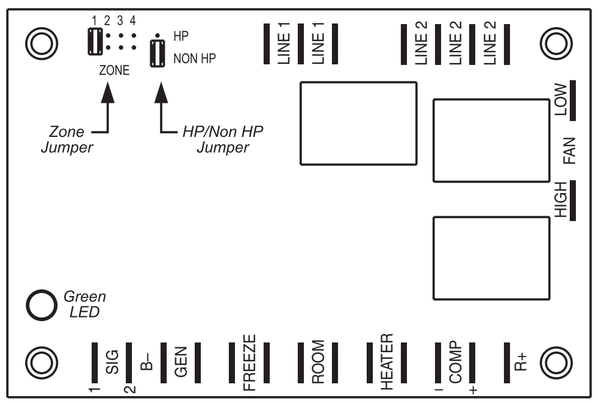
Setting the Upper Control Board

DANGER: *When adjusting the jumpers on the upper unit control board be sure the line Voltage, (115 VAC) and the control Voltage, (12 VDC) are disconnected from the board. Failure to do this could result in injury or death.*

Each zone must be controlled by an upper unit control board. When installed, this board is located in the return air plenum of the air conditioner (see installation instructions for the air conditioner control box). When installing the system, the upper unit control board must have two jumpers installed to operate properly. First of all, the zone jumper must be set according to which zone the board is to control. We recommend starting at the front of the coach as zone 1 and progressing towards the rear. If the board is to control zone 1, then the jumper must be across the two jumpers labeled 1 and so on for each zone (see drawing below). The second jumper that must be installed is the HP/NON-HP jumper (see drawing below). This tells the system whether the unit being controlled is a heat pump or not. If the unit being controlled is a heat pump, the jumper must be between the center post and the one closest to the HP. Likewise if the unit being controlled is not a heat pump, then the jumper must be between the center post and the one closest to NON-HP. For further explanation, see installation instructions for the control box.

The green LED lights when there is adequate control voltage, (12 VDC) at the board. The green LED will initially flash the number of times corresponding to the zone jumper setting. The green LED will stop flashing when communication with the thermostat is established.

For further explanation, see troubleshooting section of manual.



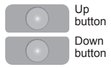
Programming the Thermostat

CAUTION: *All zones boards must be wired and should have 12 VDC at each one before programming can be done. The system only needs to be programmed once. The programmer must know what appliances are installed in each zone before proceeding with programming. If the system is programmed incorrectly the user will not be able to operate some of the climate control appliances that are installed.*

To program each zone for the type of heating and cooling installed, follow the sequence outlined below.

Press the **SYSTEM** button until in **OFF**.

Put the thermostat in the programming mode by holding down simultaneously the up and down push buttons (that are located to the right of the LCD) until words start flashing on the LCD, which should be about 5 seconds.



Press the “**ZONE**” button until zone 1 is displayed on the LCD.

Press the “**MODE**” button until the correct setup is shown for that zone.

When in the programming mode, the following sequence of options will be toggled through in this sequence:

If these applications are connected:	Then thermostat LCD display that should be selected is:
A/C	Cool
A/C Gas Heater	Cool Gas Heat
Gas Heater	Gas Heat
A/C Gas Heater HP or Strip Heat	Cool Gas Heat Elec
A/C HP or Strip Heat	Cool Heat Elec

Toggle through all options, then stop at the desired one. Once the correct setup is selected for zone 1, press the **ZONE** button and repeat the process for each zone that is connected to the system. After the correct settings are selected for each zone that is hooked up, press the **SYSTEM** button once to exit from programming. This will exit the programming mode and the setup will be stored in memory indefinitely.

Note: *If two or more upper unit control boards have been set to the same zone, the units will operate the same as one another.*

General

Once temperature settings have been set for each zone in heating and cooling, the thermostat memory will retain these settings during seasonal changovers and times of no electrical power.

A connection for an “Auto Generator Start” appliance is included on the upper unit control board that is mounted in the return air of the air conditioner or heat pump. This calls for the generator to run when calling for the compressor for cooling or heating, or when calling for strip heat. Note that the generator will not be called for fan only operation or for gas heat operation.

The thermostat wiring is factory installed by the OEM (original equipment manufacturer). The thermostat connects to the upper unit(s) with a 9-pin plug and 2-pin plug (see system wiring diagram). The OEM must supply the 12 VDC wiring and the heating appliance control wiring which connects to the 9-pin plug on the thermostat. **RV Products** suggests the thermostat wiring be a minimum of 18 gauge.

Zone arrangement should be set with the front of the vehicle as zone 1 and progress toward the rear of the coach.

The OEM installed the upper control boxes for the zone system at the factory and programmed the thermostat for the system that is installed in this motor coach. Before programming the thermostat, it is imperative that the programmer knows the types of appliances that have been installed in the motor coach in each zone. The heating appliance control circuit must not exceed 1 Amp.

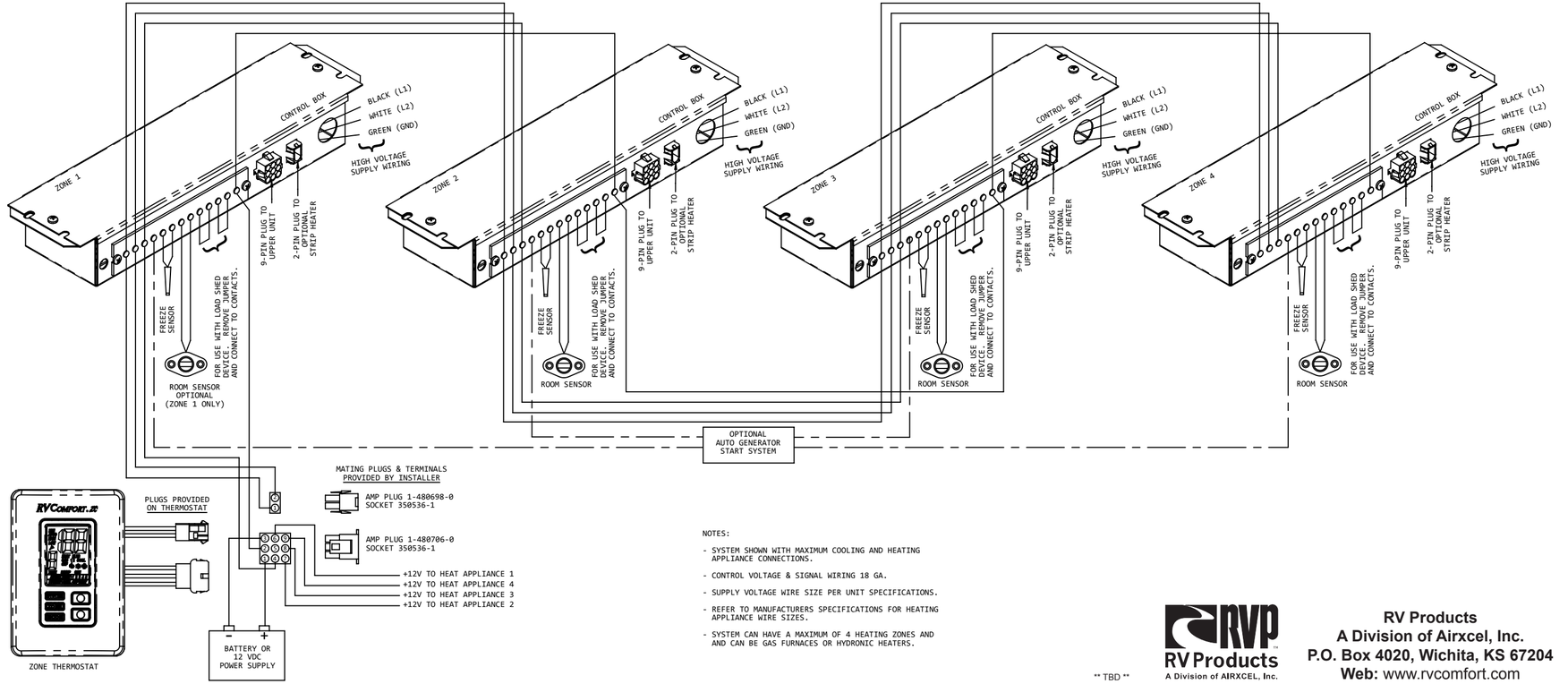
Control Box

The control box mounted in the return air plenum has an opening that allows viewing of the green LED on the control board. The green LED, when lighted, indicates that the control voltage is adequate to run the system. When the LED is not lighted, there is a problem with the 12 Volt DC control voltage and it must be serviced by a trained technician.

Troubleshooting

Symptom	Remedy
No display on LCD	No power to thermostat (Remove ceiling assembly grille and look in round opening of control box for green LED light. Light not displayed, there is no power to control box).
Heat or Cool displays on thermostat, but can’t modify settings	Appliances may not be installed on this coach, check homeowners packet
“Er” displaying on thermostat	Current temperature may be outside display range of thermostat Extenal room sensor circuit may be disrupted. Contact service technician.
Temperature does not change on thermostat when unit is running	Current temperature may be outside display range of thermostat (thermostat designed to show 41°F-110°F)
Appliances not responding to thermostat setting changes	Zone or appliance settings on upper control boards may not be correct for zones or appliances installed Built-in delay for communication signal
Setpoint cannot be adjusted	Check setting of thermostat (Setpoint cannot be adjusted when SYSTEM is set to OFF, Cool or HEAT mode is set to OFF, the zone is turned OFF, or FAN is set to run HIGH or LOW continuously)
GAS flashing on LCD display	Backup heat source is energized to supplement primary heat
Backup heat source running with Heat Pump idle	Heat pump is unable to keep up with heating demand, system locks out heat pump for 2 hours and backup heat becomes primary heat source for those 2 hours
Two or more units have identical operation	Upper unit control boards may be set to same zone. Have service technician check.
Unit not responding	Communication signal lost to that zone (Signal wire might have vibrated loose). The systemdoes not operate below 9.75 VDC.

System Wiring Diagram



NOTES:

- SYSTEM SHOWN WITH MAXIMUM COOLING AND HEATING APPLIANCE CONNECTIONS.
- CONTROL VOLTAGE & SIGNAL WIRING 18 GA.
- SUPPLY VOLTAGE WIRE SIZE PER UNIT SPECIFICATIONS.
- REFER TO MANUFACTURERS SPECIFICATIONS FOR HEATING APPLIANCE WIRE SIZES.
- SYSTEM CAN HAVE A MAXIMUM OF 4 HEATING ZONES AND AND CAN BE GAS FURNACES OR HYDRONIC HEATERS.

** TBD **

RV Products
A Division of AIRXCEL, Inc.

RV Products
A Division of Airxcel, Inc.
P.O. Box 4020, Wichita, KS 67204
Web: www.rvcomfort.com

LIAF168

ATTACHMENT 7

ATTACHMENT 7

Component	Type or Brand	Vendor or Manufacturer	Warranty Period	Phone Number	Website
Air Conditioner		Airxcel	2 year	316-832-4357	www.airxcel.com/coleman-mach
Axle	EZ Lube Bearings	Dexter	10 Year	574-295-7888	www.dexteraxle.com
	Torflex				
Battery	SP-18	Interstate	1 Year	866-884-4635	www.interstatebatteries.com
Blinds and Shades	Skylight Shade	United Shade	1 Year	877-262-0954	www.unitedshade.com
	Window Shades	Ocean Air Interiors	2 Year	802-362-5258	www.oceanair.co.uk
Chassis		Lippert Components Inc.	1 year	574-537-8900	www.lci1.com
Converter	WFCO		2 Year	877-294-8997	www.wfcoelectronics.com
Energy Management System		Precision Circuits Inc	3 year	630-515-9100	www.precisioncircuitsinc.com
Faucets		Delta	Limited Lifetime	800-345-3358	www.deltafaucet.com
Flooring	Composite (Begin January 2020)	RidgeCorp	5 Year	614-421-7434	http://ridgecorp.com/
	Hardwood Flooring	D&M Flooring	3 Year Limited Finish	888-388-1240	https://dm-flooring.com/maintenance/
Furnace	Cheap Heat™	RV Comfort Systems		425-408-3140	www.rvcomfortsystems.com
	Wall Heater	Broan-NU Tone	1 Year	800-558-1711	www.broan.com
Jack	Manual	Norco Industries	1 Year	800-347-2232	www.norcoind.com
Lights	Interior	ITC	3 Year	888-871-8860	www.itc-rv.com
	Exterior	Kaper II	2 Year	800-336-2011	www.kaperii.com
Locks	Electronic	ASSA ABLOY Global Solutions		800-367-8097	https://www.assaabloyglobalsolutions.com/en/aags/com/
Power Cord		Smartplug Systems	7 Years	206-285-2990	https://smartplug.com/
Refrigerator	Haier		1 Year	877-337-3639	www.haierappliances.com
	Fire Extinguisher				

ATTACHMENT 7

Component	Type or Brand	Vendor or Manufacturer	Warranty Period	Phone Number	Website
Safety Equipment	CO Detector	Manufacturer and contact information listed on component part			
	Smoke Detector				
Television		MITO Corporation	1 Year	888-433-6486	www.mito-oem.com
Tires	King 2	Tredit Tire & Wheel Co.	2 year from DOP	855-887-3342	www.tredittire.com
Toilet	Whitehaus Magic Flush	Home Depot	1 Year	800-527-6690	http://whitehauscollection.com/
Trailer Skirt		Sharps Tarps	1 Year	801-972-3232	https://www.sharpstarps.net/
Vents	Fantastic Fan	Dometic	2 year	800-544-4881	www.dometicusa.com
Water Heater	Torrid Marine		5 Year	800-722-5123	www.torridwaterheaters.com
Water Fill		Pentair	1 year	800-854-3218	www.shurflo.com/rv-products