

Bill of Materials - Reflector Assembly

Rev Mar 29/10

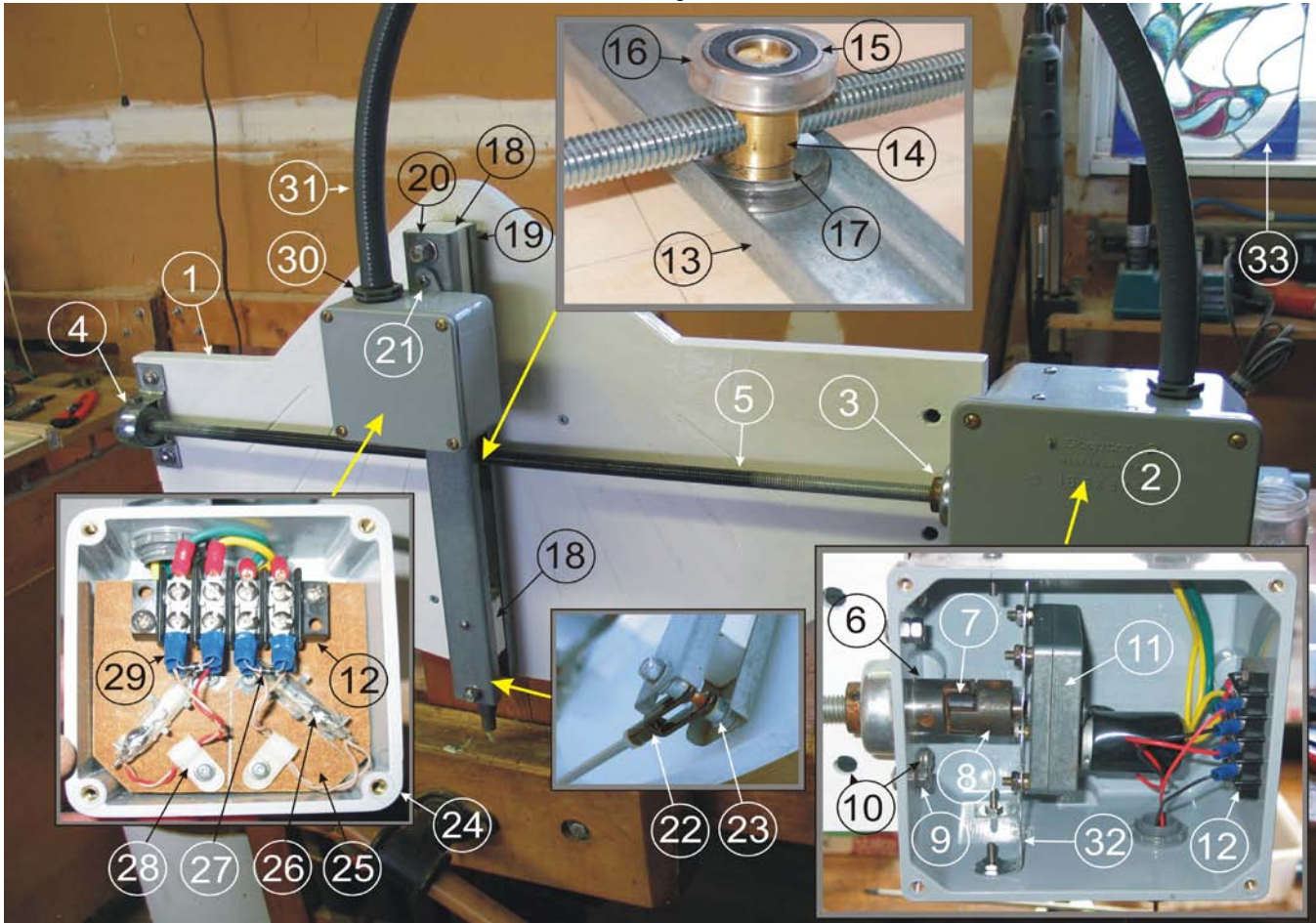


BILL OF MATERIALS					
Reflector/Collector Assy - to make 1 eight foot					
Find #	Name	Qty per	Cost ea	\$ Total	Ref pg # Comments
1	Side Channel 8'	2	\$5.00	\$10.00	25
2	Rib - Type C	2	\$3.00	\$6.00	14
3	Rib - Type B	1	\$3.00	\$3.00	14
4	Rib - Type A	4	\$3.00	\$12.00	14
5	Hanger	2	\$1.00	\$2.00	21
6	Bolt 1/4-20x1-1/2" SS or nylon	6	\$0.50	\$3.00	42
6	Washer 1/4" ID flat SS or nylon	12	\$0.15	\$1.80	42
6	Hex nut 1/4" SS or nylon	6	\$0.25	\$1.50	42
6	Washer 1/4" ID shim			\$0.00	42 As required
7	Bolt 1/4-20x1-1/4" SS or nylon	14	\$0.50	\$7.00	39
8	Bolt 1/4-20x1-3/4" SS or nylon	14	\$0.60	\$8.40	39
9	Cross dowel 12mm	28	\$0.24	\$6.72	39
9	Anti-seize Locktite C5-A				39 if SS screws
10	Reflector sheet 24"x96"	1	\$50.00	\$50.00	30
10	Paint, latex, white				33 for acrylic mirror
11	Foam strip 3/8x3/8" closed cell	16 feet		\$3.00	30 see errata
12	Foam strip 3/8x1/8" closed cell	14 feet		\$5.00	40
	Copper tube 1-1/2"x116"	1	\$40.00	\$40.00	34
	Heatshrink 1-1/2"	8 feet	\$12.00	\$24.00	37

Cost per

\$183.42

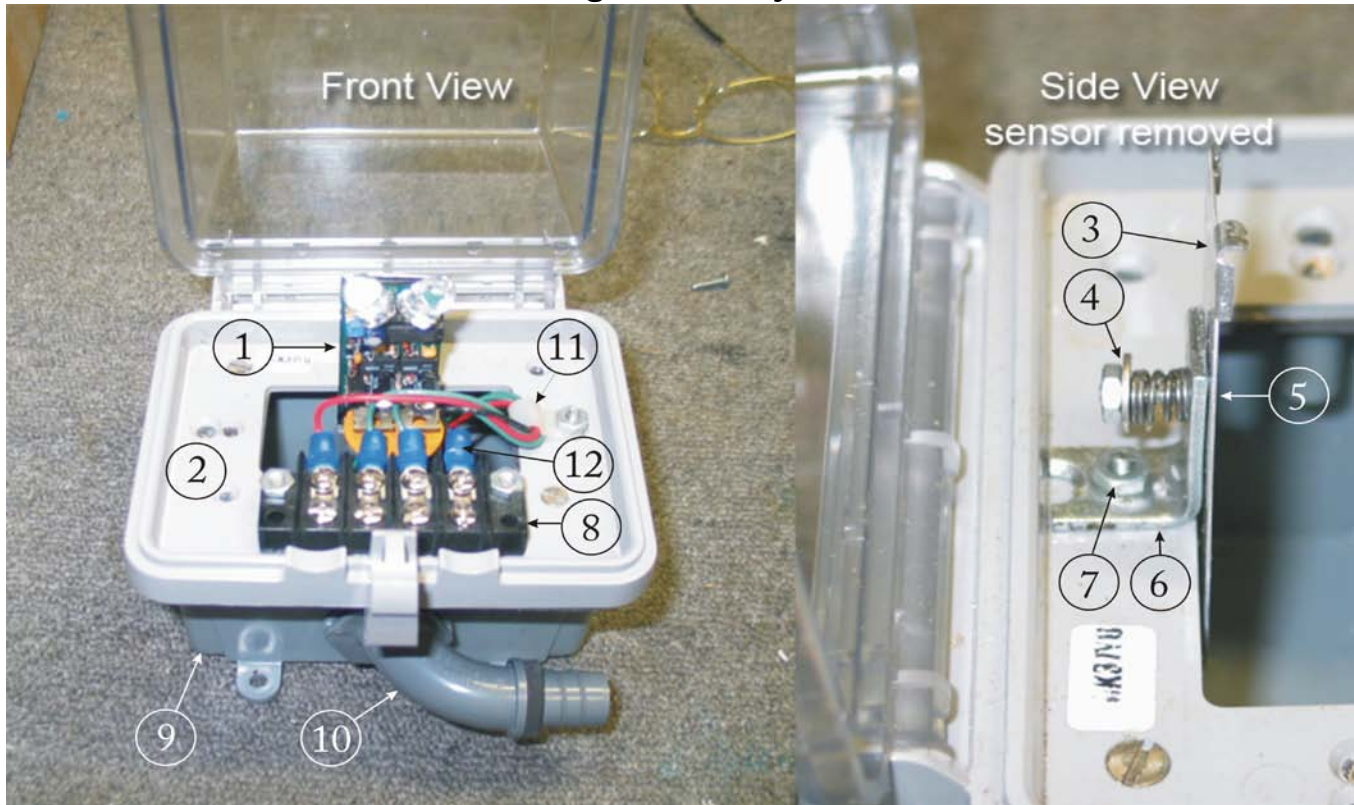
Bill of Materials - Motor Drive Assembly



BILL OF MATERIALS						
Motor Drive Assy						
Find #	Name	Qty per	Cost ea	\$ Total	Ref pg #	Comments
1	Motor drive base	1	\$20.00	\$20.00	50	
2	Motor box	1	\$17.00	\$17.00	50	
3	Flange bearing	1	\$16.00	\$16.00	51	
4	Pillow block bearing	1	\$12.00	\$12.00	51	
5	Drive screw 1/2"-13x36" galv	1	\$5.00	\$5.00	51	
6	Jaw coupling L050 1/2"	1	\$3.00	\$3.00	51	
7	Jaw coupling L050 spider	1	\$1.00	\$1.00	51	
8	Jaw coupling L050 5/16"	1	\$3.00	\$3.00	51	
9	Bolt 5/16x3/4" SS or nylon	2	0.50	\$1.00	51	
9	Hex nut 5/16" SS or nylon	2	\$0.30	\$0.60	51	
10	Bolt 1/4x20x1-1/4 SS or nylon	2	\$0.50	\$1.00	51	

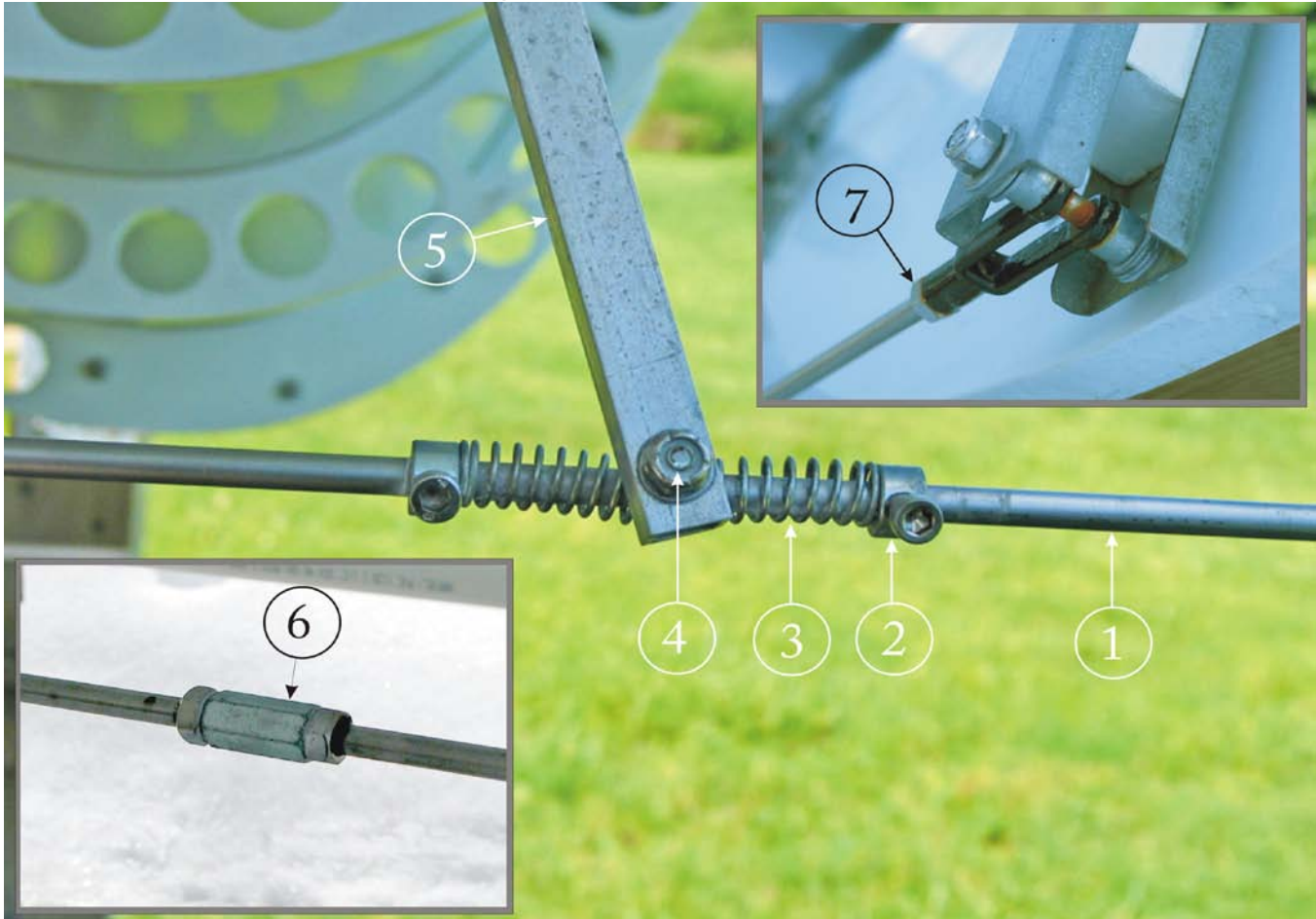
10 Cross dowel 12mm	2	\$0.24	\$0.48	51
11 Gear motor	1	\$60.00	\$60.00	52
12 Terminal Strip 4 position	1	\$2.00	\$2.00	53
13 Drive arm galvanized	2	\$2.50	\$5.00	56
14 Axle nut brass	1	\$50.00	\$50.00	57
15 Ball bearings 1-1/8"OD 1/2"ID	2	\$2.00	\$4.00	57
16 Bearing tire	2	\$0.10	\$0.20	58
17 Thrust washers SS	2	\$0.75	\$1.50	58
18 Drive arm blocks PT	2	\$0.10	\$0.20	59
19 Washer, shim 1/2" galv	4	\$0.10	\$0.40	60
20 1/2"-13x5" galv	1		\$0.00	61 cut from 5 above
20 Hex nut 1/2"-13 nylock SS	2	\$0.75	\$1.50	
20 Thrust washers SS	2	\$0.75	\$1.50	
21 Pan head #8x1" SS	6	\$0.20	\$1.20	
22 Yoke end	1	\$6.00	\$6.00	62
23 Washers, spacers to suit			\$0.00	62
23 Bolt 1/4x20x2" SS or nylon	1	\$0.75	\$0.75	62
23 Hex nut 1/4"-20 nylock SS or ny	1	\$0.50	\$0.50	62
24 Limit switch box	1	\$5.50	\$5.50	63
25 Limit switch support plate	1		\$0.00	64
26 Mercury tilt switch	2	\$2.00	\$4.00	65
27 Silicon diode 1N4001	2	\$0.10	\$0.20	65
28 Cable clamps small	2	\$0.10	\$0.20	65
29 Fork lugs	8	\$0.10	\$0.80	65
30 Carlon "one piece" straight	2	\$1.00	\$2.00	66
31 Carlon Carflex conduit	3 feet	\$0.80	\$2.40	66
32 Motor mount straps	2	\$0.01	\$0.02	53
32 Bolt 10-24x3/4" SS or nylon	4	\$0.15	\$0.60	53
32 Hex nut 10-24 SS or nylon	4	\$0.10	\$0.40	53
32 Hex nut 10-32 SS or nylon	4	\$0.10	\$0.40	53
33 Stained glass	1			not reqd
Cost			\$231.35	

Bill of Materials - Sensor Housing Assembly



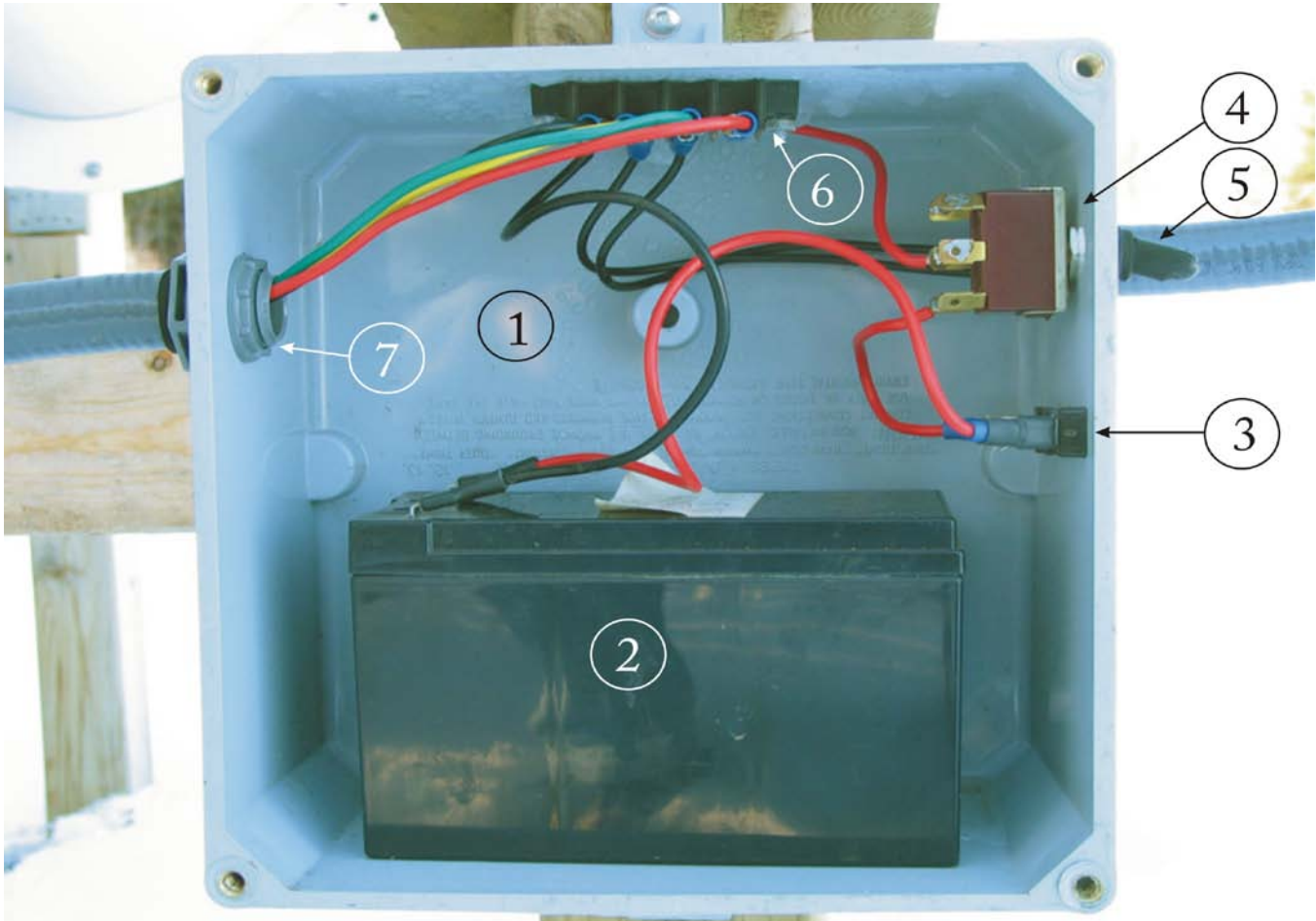
BILL OF MATERIALS					
Sensor Housing Assembly					
Find #	Name	Qty per	Cost ea	\$ Total	Ref pg # Comments
1	Redrok LED3X solar tracker	1	\$35.00	\$35.00	77
2	Leviton weather resistant cover	1	\$18.00	\$18.00	80
3	Sensor mounting plate	1		\$0.00	81
4	Bolt flat hd 4-40x1"	1		\$0.00	81
4	Washer #4 flat	1		\$0.00	81
4	Spring 3/16x1/2" steel	1		\$0.00	81
5	Epoxy			\$0.00	as reqd
6	Small bracket	1		\$0.00	81
7	Bolt 4-40x1/2"	1		\$0.00	
7	Hex nut 4-40	1		\$0.00	
7	Washer #4 flat	1		\$0.00	
8	Terminal strip 4 position			\$0.00	53
9	Plastic electrical switch box	1		\$2.00	
10	Carlton "one piece" 90 degree	1		\$2.00	66
11	Cable clamp small	1			
11	Bolt 4-40x1/2"	1			
11	Hex nut 4-40	1			
12	Fork lugs	4			
	Short lengths of 22 ga wire	4			81
Cost				\$57.00	

Bill of Materials - Drive linkage



BILL OF MATERIALS					
Drive Linkage Assembly - per reflector					
Find #	Name	Qty per	Cost ea	\$ Total	Ref pg # Comments
1	Control rod 1/4" dia SS	2 feet	\$0.30	\$0.60	71 per reflector
2	Stop/shaft collar 1/4"	2	\$0.30	\$0.60	71
2	Socket head cap screws SS	2	\$0.30	\$0.60	71
3	Coil spring 3/8"x1"	2	\$0.30	\$0.60	71
4	Eye bolt Stanley or equiv	1	\$0.50	\$0.50	70
4	Hex nut nylock 10-24	1	\$0.25	\$0.25	70
5	Reflector arm	1	\$1.00	\$1.00	69
	Bolt 1/4-20x1-1/4" SS or nylon	2	\$0.50	\$1.00	at B rib
	Hex nut 1/4" SS or nylon	2	\$0.25	\$0.50	at B rib
Cost - per reflector				\$5.65	
Additional components as reqd					
1	Control rod 1/4" dia SS	2 feet	\$0.30	\$0.60	71 to motor drive
6	Coupling nut hex 1/4"-20	1	\$0.50	\$0.50	72 as reqd
6	Hex nut 1/4" SS or nylon	2	\$0.25	\$0.50	72 per coupling nut
7	Hex nut 1/4" NF at yoke	1	\$0.25	\$0.25	at motor drive

Bill of Materials - Battery Box



BILL OF MATERIALS					
Battery box					
Find #	Name	Qty per	Cost ea	\$ Total	Ref pg # Comments
1	Battery box	1	\$29.00	\$29.00	75
2	Battery gel cell 7.2 AH	1	\$20.00	\$20.00	75
3	Fuseholder	1	\$1.00	\$1.00	75
3	Fuse 2A cartridge type	1	\$0.20	\$0.20	75
4	Power switch SPST toggle	1	\$1.00	\$1.00	76
5	Switch boot APM Hexseal	1	\$2.00	\$2.00	76
6	Terminal Strip 4 position	1	\$2.00	\$2.00	76
6	Fork lugs	4	\$0.10	\$0.40	
6	Bolt 4-40x1" SS or nylon	2	\$0.20	\$0.40	
6	Hex nut 4-40 SS or nylon	2	\$0.15	\$0.30	
7	Carlson "one piece" straight	2	\$1.00	\$2.00	
Cost				\$58.30	