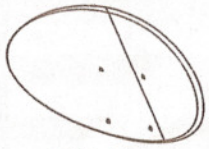
36" MULTI-SATELLITE ANTENNA ASSEMBLY MANUAL
FOR DIRECTV® 95°W/101°W PRO BRAND INTERNATIONAL, INC. MODEL 36DSHR0-02

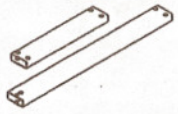
DIRECTV

PARTS INCLUDED

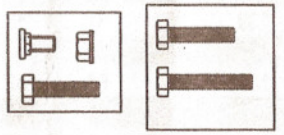

36" Reflector

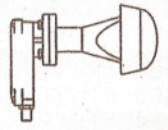

AZ/EL Mount

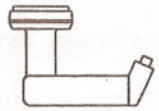

Back Frame

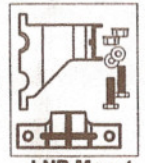

Feed Support Arms
1 - Short ; 1 - Long

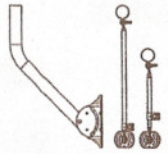

Feed Support Elbow


Antenna Hardware Kit
- 5/16"x 1-3/8" Hex Head Bolt (7)
- 5/16"x 5/8" Round Flat Head Bolt (7)
- 5/16" Serrated Flanged Nut (14)
- 5/16" x 3" Lag Bolt (6)
- 5/16" x 2" Lag Bolt (4)


95°W Ku LNB Assembly


101°W DBS
LNB (DTV32+)


LNB Mount
Bracket Kit

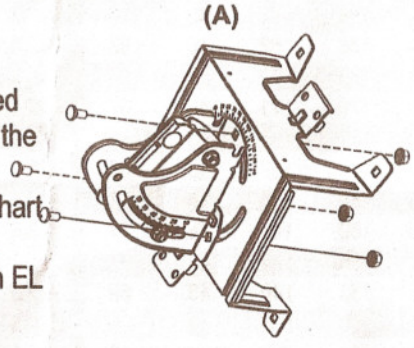

Mast & Base
With Mono-Pole Braces
Long (1)
Short (1)

Step 1 AZ/EL Setup

A) Attach AZ/EL mount to back frame as shown in diagram A. Tighten when proper skew adjustments have been set for your area.

B) Setting SKEW-Find the SKEW setting for your location from the chart located on the next page. Rotate AZ/EL mount on the back frame until the pointer is in the appropriate setting.

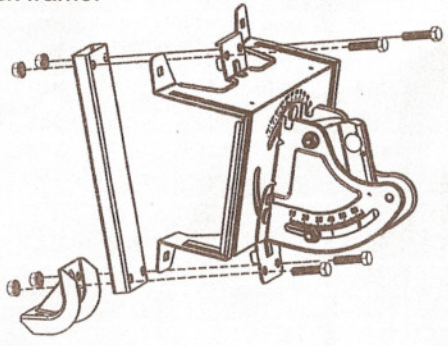
C) Setting Elevation-Find the elevation (EL) setting for your location from the chart located on the next page. Loosen the nuts on the AZ/EL mount to allow the EL bracket to slide. Point the indicator line to the appropriate setting. Tighten both EL brackets nuts.



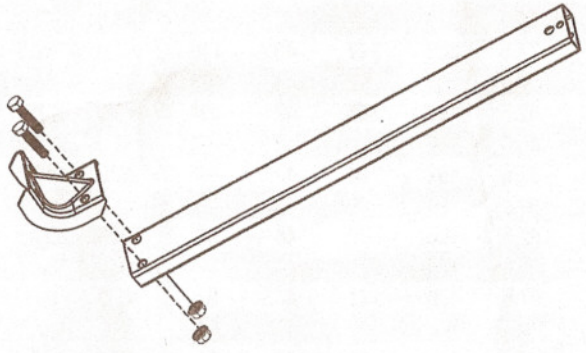
Step 2 Assemble Short Feed Arm to Back Frame

A) Place top bolts above the scale on the back frame first.

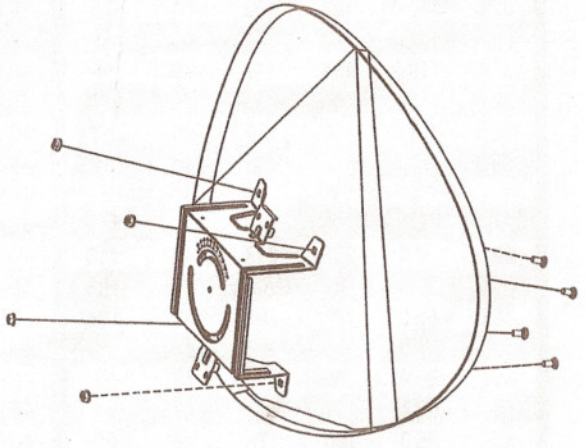
B) Place feed support elbow on short feed tube prior to attaching to low side of back frame.



Step 3 Attach Long Feed Tube to Feed Support Elbow



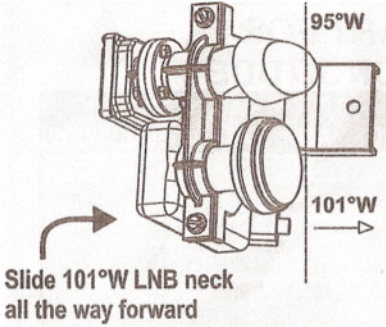
Step 4 Attach Back Frame to 36" Reflector



Align peg on 95°W LNB neck with hole on the bottom bracket.

Step 5 Feed & LNB Assembly

NOTE: TO PREVENT POSSIBLE LNB DAMAGE, THE FOLLOWING STEPS SHOULD BE PERFORMED ON A TABLE TOP OR SOLID SURFACE. USE



HARDWARE INCLUDED IN MOUNTING BRACKET KIT.

A) Place 95°W LNB onto the bottom feed bracket in the position directly over the attachment for feed arm. The neck of the 95°W LNB has a small peg that will sit directly into a hole on the bottom bracket - ensuring proper placement and no rotation of the LNB. Place 101°W DBS LNB, DTV32+ onto the bottom feed bracket in the outer position.

Note: Both LNB's should be vertical, bodies facing straight down.

B) Attach the top bracket. Washer should be placed underneath head of screw.

C) Slide the 101°W LNB all the way forward until it reaches the stopping point. The 95°W LNB position is fixed.

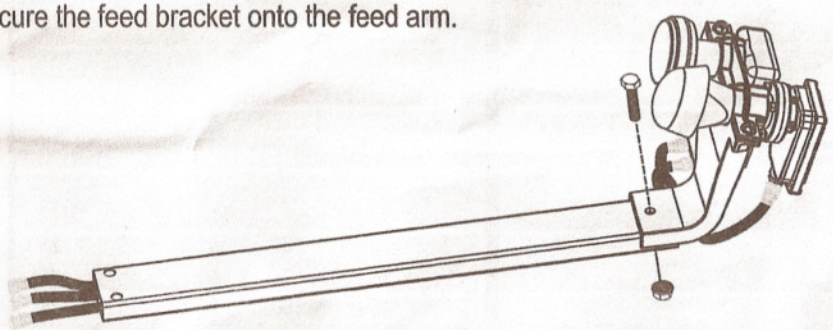
E) Tighten the top bracket down being careful not to move the LNB's.

Step 6 Connecting the LNB's

A) If you have mounted the multi-switch (not included) to the back frame of antenna, make up three (3) 60" coax jumper cables. Feed your 3 coaxial cables through the feed arm. Start at the elbow and feed cables one at a time through the feed arm towards the LNB's & bracket.

B) Attach two coax to the 101°W LNB, DTV32+. Attach one coax to the 95°W LNB.

C) Slide the base of the bracket over the end of the feed support arm, secure the feed bracket onto the feed arm.



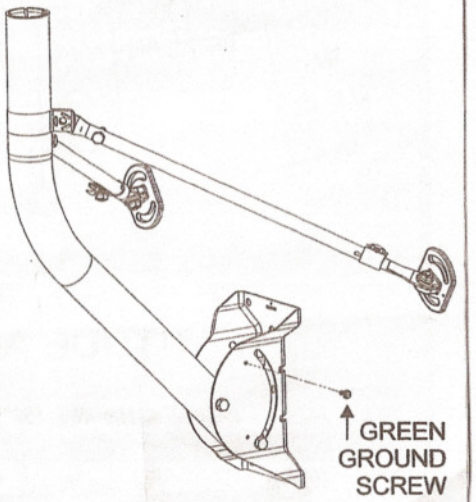
Step 7 Tri-mast Assembly & Installation

Assemble Mast as shown.

A) Locate a stud so two 3" that lag bolts will be screwed into the center of stud. Mark location on surface and drill the pilot holes. Secure footplate to surface with lag bolts. Use four remaining 2" lag bolts for wall.

B) Locate stud for attaching each mono-pole brace & mark location. Drill pilot holes for lag bolts/brace. Using a magnetic torpedo level, adjust the upright portion until it is plumb-level on all sides (front, back, left and right).

C) Place Dish onto mast assembly.



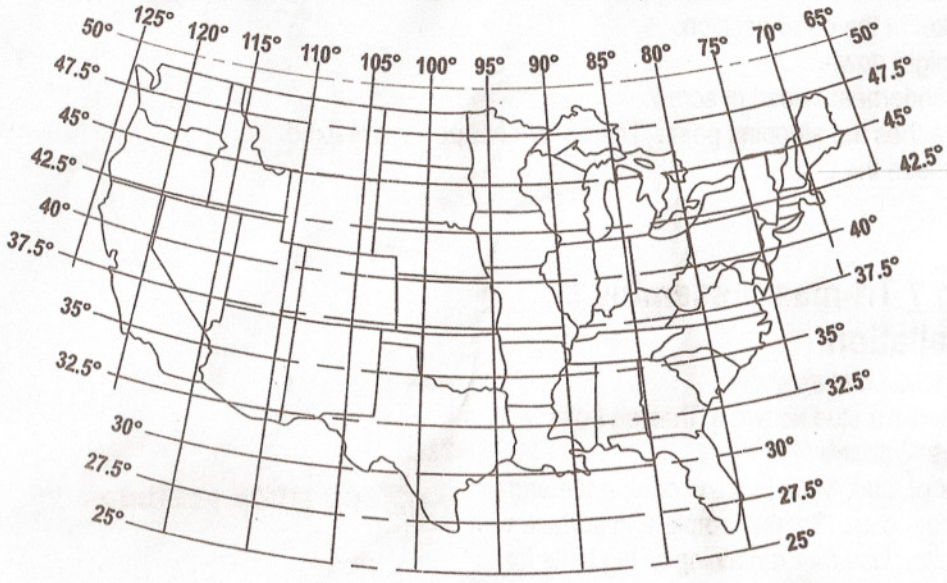
Step 8 Alignment Procedure

Connect the un-marked 95° W coax cable (from the P170+ LNB) to the receiver or a signal strength meter. DIRECTV® programming on the 95°W satellite is H polarity. Set the DC bias to 18V to select H polarity. Refer to the chart on the flip side of this manual, or from the receiver's installation info as displayed when the zip code is entered, to determine the magnetic AZ (azimuth) heading of the antenna for your installation site. The EL (elevation) and Skew settings should already be set, previously done in steps 1-B and 1-C. Use a compass to locate the AZ heading the antenna should point, then aim the antenna in this direction. Slowly move the antenna back-and-forth until a signal is detected. If no signal can be found, raise/lower the EL in 2° increments, and repeat the slow AZ back-and-forth rotation until a signal is detected. Once signal is found, move the antenna gently back-and-forth until peak signal is achieved. Snug the mast/tube clamp nuts. Loosen the two (2) EL bracket adjustment nuts (one on each side of the EL mount) to allow up-and-down EL movement of the antenna. Slowly move the antenna EL up-and-down to adjust for peak signal. Tighten the two EL adjustment nuts. Loosen the mast/tube clamp nuts, and again move the antenna very slowly back-and-forth, and peak for best signal. Tighten the mast/tube clamp nuts.

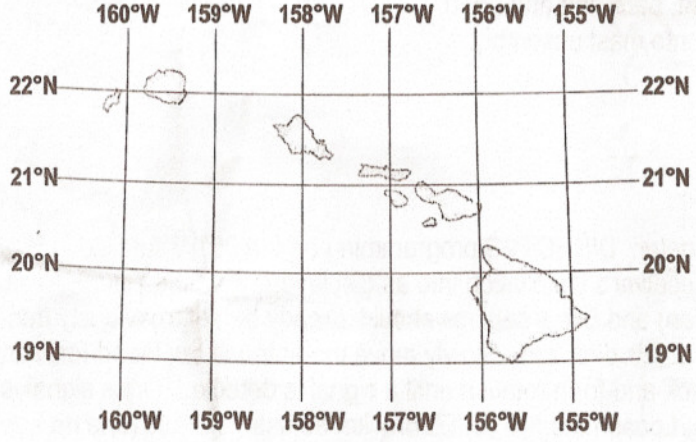
If necessary, continue with alternating AZ and EL adjustments until maximum signal is reached. Maximum signal is achieved when additional AZ and EL adjustments do not improve signal strength any further. Follow the instructions provided with your multi-switch (NOT Included), and connect both 101° DBS sat coax cables, marked "Sat A", to the designated ports on the switch. Connect the un-marked 95°W coax cable to the switch. The Alignment and hook-up procedure is now finished.

Check all nuts/bolts on the antenna system and tri-mast to make sure they are properly tightened.

LATITUDE AND LONGITUDE



LATITUDE AND LONGITUDE



HAWAII ALIGNMENT CHART FOR SATELLITE @ 95° WEST LONGITUDE

LAT	LONG	TRUE AZ	MAG AZ	EL	SKEW
18.5	154.5	101	91	21	21
18.5	155.0	100	91	20	21
19.0	154.5	101	91	20	22
19.0	155.0	101	91	20	22
19.0	155.5	100	91	20	22
19.0	156.0	100	91	19	21
19.5	154.5	101	91	20	22
19.5	155.0	101	91	20	22
19.5	155.5	101	91	19	22
19.5	156.0	100	91	19	22
19.5	156.5	100	91	19	22
20.0	155.0	101	91	20	23
20.0	155.5	101	91	19	23
20.0	156.0	101	91	19	23
20.0	156.5	100	91	19	22
20.5	155.5	101	91	19	23
20.5	156.0	101	91	19	23
20.5	156.5	101	91	18	23
20.5	157.0	100	91	18	23
20.5	157.5	100	91	17	23
21.0	156.0	101	91	19	24
21.0	156.5	101	91	46	24
21.0	157.0	101	91	47	23
21.0	157.5	101	91	48	23

LAT	LONG	TRUE AZ	MAG AZ	EL	SKEW
21.5	157.0	101	91	18	24
21.5	157.5	101	91	17	24
21.5	158.0	100	91	17	24
21.5	158.5	100	91	16	24
21.5	159.0	100	90	16	24
21.5	159.5	100	90	15	24
21.5	160.0	99	90	15	23
21.5	160.5	99	90	14	23
22.0	159.0	100	91	16	24
22.0	159.5	100	90	15	24
22.0	160.0	100	90	15	24
22.0	160.5	100	90	14	24
22.5	159.5	100	91	15	25
22.5	160.0	100	90	15	25
22.5	160.5	100	90	14	24

Determine your site LATITUDE & LONGITUDE by using the maps or another reference source (e.g. GPS or Atlas). Locate the grid point closest to your location in the table, values are provided in increments of 2.5°. Use the Azimuth, Elevation and Skew values to set the antenna AZ/EL mount for step 4, page 3 of this manual.

***Use True Azimuth "TRUE AZ" when aligning to a known bearing or GPS.**
***Use Magnetic Azimuth "MAG AZ" when aligning with a compass.**

USA ALIGNMENT CHART FOR SATELLITE @ 95° WEST LONGITUDE

LAT	LONG	TRUE AZ	MAG AZ	EL	SKEW
25.0	80.0	212	218	56	119
25.0	82.5	208	211	58	115
27.5	80.0	210	216	54	116
27.5	82.5	206	201	55	113
27.5	97.5	175	169	58	85
27.5	100.0	169	163	57	80
30.0	80.0	208	215	51	114
30.0	82.5	204	209	52	111
30.0	85.0	199	202	53	107
30.0	87.5	195	196	54	103
30.0	90.0	190	189	55	99
30.0	92.5	185	183	55	94
30.0	95.0	180	176	55	90
30.0	97.5	175	107	55	86
30.0	100.0	170	163	55	81
30.0	102.5	165	157	54	77
30.0	105.0	161	152	53	73
32.5	80.0	207	214	49	112
32.5	82.5	202	204	50	109
32.5	85.0	198	214	51	105
32.5	87.5	194	201	51	102
32.5	90.0	189	189	52	98
32.5	92.5	185	183	52	94
32.5	95.0	180	176	52	90
32.5	97.5	175	170	52	86
32.5	100.0	171	164	52	82
32.5	102.5	166	158	51	78
32.5	105.0	162	153	51	75
32.5	107.5	158	147	50	71
32.5	110.0	154	142	49	68
32.5	112.5	150	138	48	65
32.5	115.0	146	133	46	62
32.5	117.5	142	129	45	59
35.0	77.5	209	218	45	113
35.0	80.0	205	213	46	110
35.0	82.5	201	207	47	107
35.0	85.0	197	201	48	104
35.0	87.5	193	195	49	101
35.0	90.0	189	189	49	97
35.0	92.5	184	182	49	94
35.0	95.0	180	176	49	90
35.0	97.5	176	170	49	86
35.0	100.0	171	164	49	83

LAT	LONG	TRUE AZ	MAG AZ	EL	SKEW
35.0	102.5	167	159	49	79
35.0	105.0	163	153	48	76
35.0	107.5	159	148	47	73
35.0	110.0	155	143	46	70
35.0	112.5	151	139	45	67
35.0	115.0	148	135	44	64
35.0	117.5	144	131	43	61
35.0	120.0	141	127	41	59
37.5	75.0	211	223	42	114
37.5	77.5	207	217	43	111
37.5	80.0	204	212	44	109
37.5	82.5	200	206	45	106
37.5	85.0	196	200	45	103
37.5	87.5	192	194	46	100
37.5	90.0	188	188	46	96
37.5	92.5	184	182	46	93
37.5	95.0	180	176	47	90
37.5	97.5	176	171	46	87
37.5	100.0	172	165	46	84
37.5	102.5	168	159	46	80
37.5	105.0	164	154	45	77
37.5	107.5	160	149	45	74
37.5	110.0	156	144	44	71
37.5	112.5	153	140	43	69
37.5	115.0	149	136	42	66
37.5	117.5	146	132	41	63
37.5	120.0	143	127	39	61
37.5	122.5	140	124	38	69
40.0	72.5	213	227	38	115
40.0	75.0	210	222	39	112
40.0	77.5	206	217	40	110
40.0	80.0	203	212	41	107
40.0	82.5	199	206	42	104
40.0	85.0	195	200	43	102
40.0	87.5	192	194	43	99
40.0	90.0	188	188	43	96
40.0	92.5	184	182	44	93
40.0	95.0	180	177	44	90
40.0	97.5	176	171	44	87
40.0	100.0	172	165	43	84
40.0	102.5	168	160	43	81
40.0	105.0	165	155	43	78
40.0	107.5	161	150	42	76
40.0	110.0	157	145	41	73
40.0	112.5	154	141	40	70

LAT	LONG	TRUE AZ	MAG AZ	EL	SKEW
40.0	115.0	151	136	39	68
40.0	117.5	147	132	38	65
40.0	120.0	144	129	37	63
40.0	122.5	141	125	36	61
40.0	125.0	138	122	34	59
42.5	70.0	215	231	35	115
42.5	72.5	212	226	36	113
42.5	75.0	208	222	37	110
42.5	77.5	205	217	38	108
42.5	80.0	202	211	39	106
42.5	82.5	198	206	39	103
42.5	85.0	195	200	40	101
42.5	87.5	191	194	40	98
42.5	90.0	187	188	41	95
42.5	92.5	184	183	41	93
42.5	95.0	180	177	41	90
42.5	97.5	176	171	41	87
42.5	100.0	173	166	41	85
42.5	102.5	169	160	40	82
42.5	105.0	165	155	40	79
42.5	107.5	162	150	39	77
42.5	110.0	158	146	39	74
42.5	112.5	155	141	38	72
42.5	115.0	152	137	37	70
42.5	117.5	148	133	36	67
42.5	120.0	145	129	35	65
42.5	122.5	142	126	34	63
42.5	125.0	139	123	32	61
45.0	67.5	216	235	31	115
45.0	70.0	213	231	33	113
45.0	72.5	210	226	34	111
45.0	75.0	207	222	34	109
45.0	77.5	204	217	35	107
45.0	82.5	197	206	37	102
45.0	85.0	194	200	37	100
45.0	87.5	191	194	38	97
45.0	90.0	187	189	38	95
45.0	92.5	184	183	38	92
45.0	95.0	180	177	38	90
45.0	97.5	176	171	38	88
45.0	100.0	173	166	38	85
45.0	102.5	169	160	38	83
45.0	105.0	166	155	37	80
45.0	107.5	163	151	37	78
45.0	110.0	159	146	36	75

LAT	LONG	TRUE AZ	MAG AZ	EL	SKEW
45.0	112.5	156	141	35	73
45.0	115.0	153	137	34	71
45.0	117.5	150	133	34	69
45.0	120.0	147	130	33	67
45.0	122.5	144	126	31	65
45.0	125.0	141	123	30	63
47.5	67.5	215	235	29	113
47.5	70.0	212	231	30	111
47.5	85.0	193	201	35	99
47.5	87.5	190	195	35	97
47.5	90.0	187	189	35	95
47.5	92.5	183	183	35	92
47.5	95.0	180	177	35	90
47.5	97.5	177	172	35	88
47.5	100.0	173	166	35	85
47.5	102.5	170	161	35	83
47.5	105.0	167	156	35	81
47.5	107.5	163	151	34	79
47.5	110.0	160	146	33	77
47.5	112.5	157	142	33	75
47.5	115.0	154	138	32	73
47.5	117.5	151	134	31	71
47.5	120.0	148	130	30	69
47.5	122.5	145	127	29	67
47.5	125.0	143	123	28	65
50.0	92.5	183	183	33	92
50.0	95.0	180	178	33	90
50.0	97.5	177	172	33	88
50.0	100.0	173	166	32	86
50.0	102.5	170	161	32	84
50.0	105.0	167	156	32	82
50.0	107.5	164	151	31	80
50.0	110.0	161	146	31	78
50.0	112.5	158	142	30	76
50.0	115.0	155	138	30	74
50.0	117.5	152	134	29	72
50.0	120.0	149	130	28	70
50.0	122.5	146	127	27	69