

C.5 REDUNDANCY CONFIGURATION

C.5.1 Mounting Kit

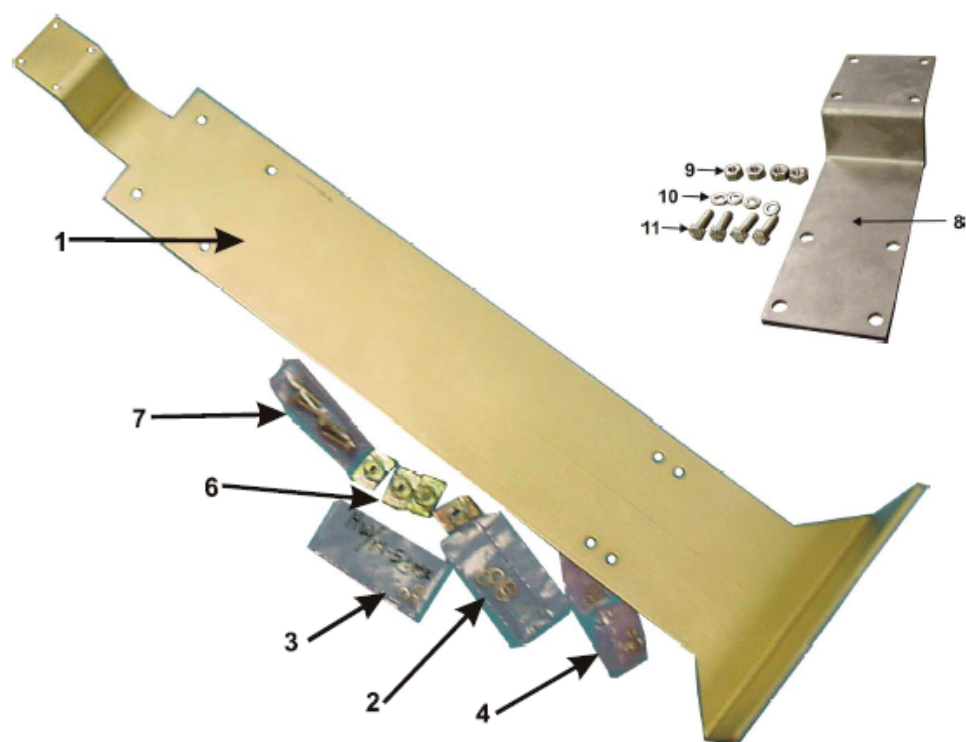
Table C-2. Final 1:1, C-Band Assembly

Part No.	Nomenclature	QTY
AS/D438	Kit, LNA Mounting	1
AS/D460	Kit, Waveguide CPR137G	1
AS/D461	Kit, Waveguide CPR229	1
AS/D478	Switch, Waveguide, TX 1:1	1
AS/D490	Assy, Remote Switch Box	1
AS/TBD	Cable Kit (See Fig. 2-12)	1

Table C-3. 1:1 Mounting Assembly, AS/0598

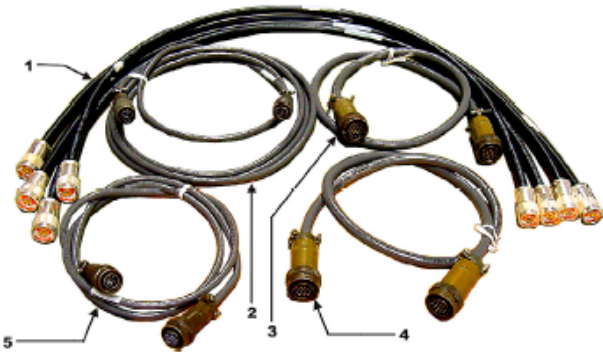
Part No.	Nomenclature	QTY
*AS/D414	Redundancy Kit, Pole Mount	2
*AS/D415	Single-Thread Mounting Kit	2
AS/D479	Switch, Mount Kit TX	1

*Refer to Single Thread Configuration.



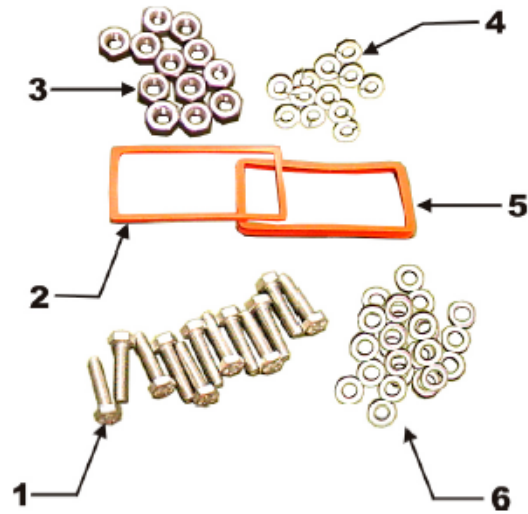
Item No.	Part No.	Nomenclature	QTY
1	FP/BR0066	Bracket, Switch Mounting	1
2	HW/M8FLATSS	Washer, Flat M8, SS, Metric	4
3	HW/M5FLAT	Washer, Flat SS Metric	8
4	HW/M5LOCK	Washer, Lock SS, Metric	4
5	Not Used		
6	HW/M8SPRINGNUT	Springnut, M8 X 1.25	4
7	HW/M8X1.25X25HEXSS	Bolt, Hex Head, M8 X 1.25 X 25 SS	4
8	FP/BR0082	Bracket, Switch Mounting	1
9	HW/M5X.08HEXNUT	Nut, Hex	4
10	HW/M5LOCKSS	Washer, Lock SS, Metric	4
11	HW/M5X.08X15MMHEX	Bolt, Hex Head	4

Figure C-8. TX Switch Mounting Kit, AS/0479



Item	Part No.	Nomenclature	QTY
1	CA/RF0097	Cable, Output RF	4
2	CA/WR0051	Cable, Control-LNA Switch	1
3	CA/WR0052	Cable, Control-TX Switch	1
4	CA/WR0053	Cable, Communication	1
5	CA/WR0053	Cable, Communication	1

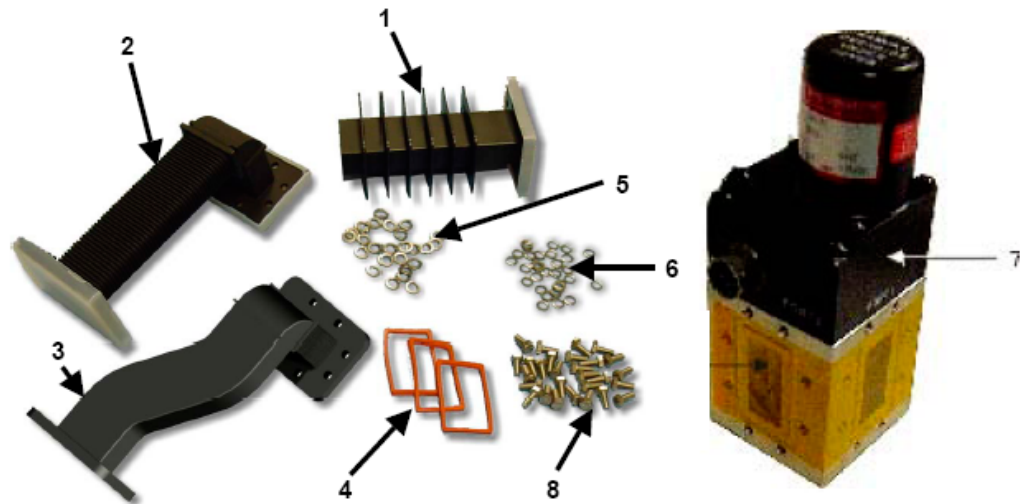
Figure C-9. Cable Kit



Note: For mounting customer-supplied unit to Transmit Switch Assembly

Item No.	Part No.	Nomenclature	QTY
1	HW/M5X.08X30MMHEX	Bolt, M5X.08X30MM Hexhead SS	12
2	GA/GSKTCP137HLF	Gasket, CP137, Half Thick	1
3	HW/M5X.08HEXNUT	Nut, Hex M5 x .08 SS	12
4	HW/M5LOCK	Lockwasher, M5 SS, Metric	12
5	GA/GSKTCP137FUL	Gasket, CP137, Full Thick	1
6	HW/M5FLAT	Washer, M5 Flat	24

Figure C-10. Waveguide Kit, CPR137G, AS/0460



Item No.	Part No.	Nomenclature	QTY
1	FP/WG0034	Waveguide Termination, Small Fins	1
2	FP/WG0043	Waveguide CPRG137, 90° "E" 5.50 Flex x 2.00	1
3	FP/WG0051	Waveguide, CPRG137, "Jogged"	1
4	GA/GSKTCP137FUL	Gasket, CP137, Full Thick	3
5	HW/M5FLAT	Washer, M5 Flat	28
6	HW/M5LOCK	Lockwasher, M5 SS, Metric	28
7	SW/WG3AGSM	Switch, CPR137G, +24V, Sealed Metric	1
8	HW/M5X.08X12MMHEX	Bolt, M5X.08X12MM Hexhead SS	28

Figure C-11. Waveguide Switch, TX 1:1, AS/0478



Figure C-12. Remote Switch Box Assembly, AS/0490

C.5.2 Redundancy Installation



Figure C-13. Redundant Configuration

C.5.2.1 Assemble Waveguide Switch, AS/0478

Step	Procedures
1	Remove all protective tape from switch and keep it clean.
2	Install waveguide termination (1, figure C-12) and gasket (4) to Port 2 (Figure C-14) of switch (7, figure C-12) and secure with bolts (8), lockwashers (6), and flat washer (7).
3	Install waveguides (2) and gaskets (4) to Ports 1 and 3 of switch (7) and secure with bolts (8), lockwashers (6), and flat washers (7).
4	Final assembly should look identical to Figure C-15.
5	Set waveguide switch assembly aside for later installation.

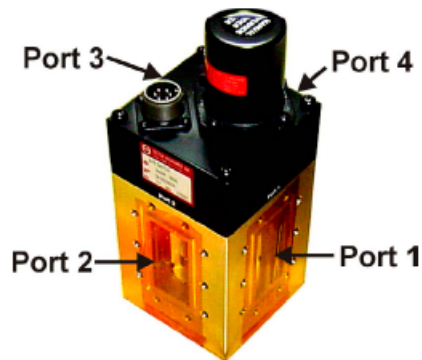


Figure C-14. Switch Port Locations

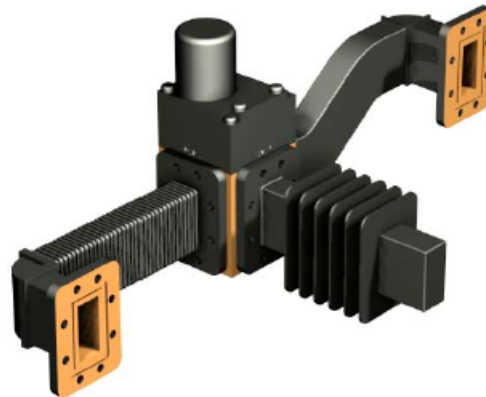


Figure C-15. Assemble Waveguide Switch, AS/0478

C.5.2.2 Assemble Redundant Configuration

Step	Procedures
1	Place Unistrut bracket (1, Figure C-1) on a flat surface.
2	Slide two springnuts (9) into the channel of the Unistrut bracket.
3	Fasten two pipe blocks (11) loosely to the springnuts using two bolts (6), two flat washers (7), and two splitlock washers (8). (See Figure C-17.)
4	Repeat procedure for second Unistrut bracket (1)
5	Position Unistrut bracket (1) with pipe blocks (11) against the mounting pole, slide the pipe blocks (11) until they contact the mounting pole.
6	Ensure the pipe blocks (11) are centered to the Unistrut brackets (1).
7	Tighten the hardware.



Figure C-16. Pipe Blocks

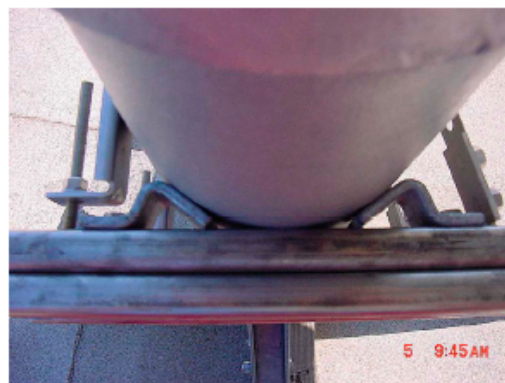


Figure C-17. Looking down at Pipe Blocks

Step	Procedures
8	Attach bracket (5, figure C-1) to the strap (4) using two nuts (10), two flat washers, (7), and two splitlock washers (8).
9	Place the assembly against the pole with the strap around the pole and trim the strap (4) to fit as shown in Figure C-16, using the tin snips.
10	Attach bracket (3, figure C-1) to the strap (4) using two nuts (10), two flat washers (7), and two splitlock washers (8).
11	Slide tensioner bracket (2) into channel of the top Unistrut bracket (1).
12	Place assembly on the pole.
13	Slide bracket (3) over bracket (2).
14	Place flat washer (7) and splitlock washer (8), and nut (10) on bracket (2).
15	Tighten nut to secure the tension strap.
16	Slide two springnuts, (5, figure C-2) into channel of the Unistrut bracket (1, figure C-1).
17	Repeat procedure for second Unistrut bracket (1).
18	Install bracket (1, figure C-8) and secure to the Unistruts with four bolts (11), lock washers (10), and flat washers.
19	Install switch mount bracket (8, figure C-8), to main bracket (1). Secure with four bolts (11), lock washers (10), and nuts (9).
20	Ensure that the bracket is centered on the Unistruts. Tighten hardware.
	<i>When installed, ensure the CSAT fan is facing outward.</i>
21	Install brackets (1, figure C-2) and secure to Unistrut brackets with four bolts (6), flat washers (2) and split lock washers (3).
22	Position brackets (1) against center bracket. Do not tighten hardware at this time.
23	Install four bolts (7, figure C-8) with split washers (10) , and flat washers (2) into provided mounting holes in the CSAT 100-Watt casting.
24	Carefully lift the unit, and slide the bolt head into the groove of bracket (1, figure C-8).
25	Ensure the washers are between the unit and the bracket. DO NOT tighten hardware at this time.
26	Temporarily install the assembled waveguide switch (Figure C-12).
27	Ensure that the ports line-up and can be secured. If a gap is present, adjust by sliding the unit and bracket (1, figure C-2) on the Unistrut (In or Out). (See Figure C-19)
28	Tighten hardware.

Step	Procedures
	<i>DO NOT</i> remove factory-installed waveguide combiner from outpout of CSAT. Improper installation will damage the unit and void the warranty.
29	Install the assembled waveguide switch (Figure C-16) and waveguide gaskets.
30	Secure assembly with bolts, lock washers and flat washers from hardware kits supplied with each CSAT (not shown, PN AS/0402-2).



Figure C-18. Observe for Gap



Figure C-19. Installation of the Waveguide Switch.

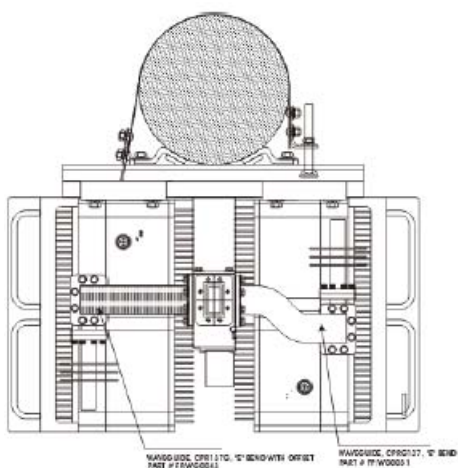


Figure C-20. Waveguide layout

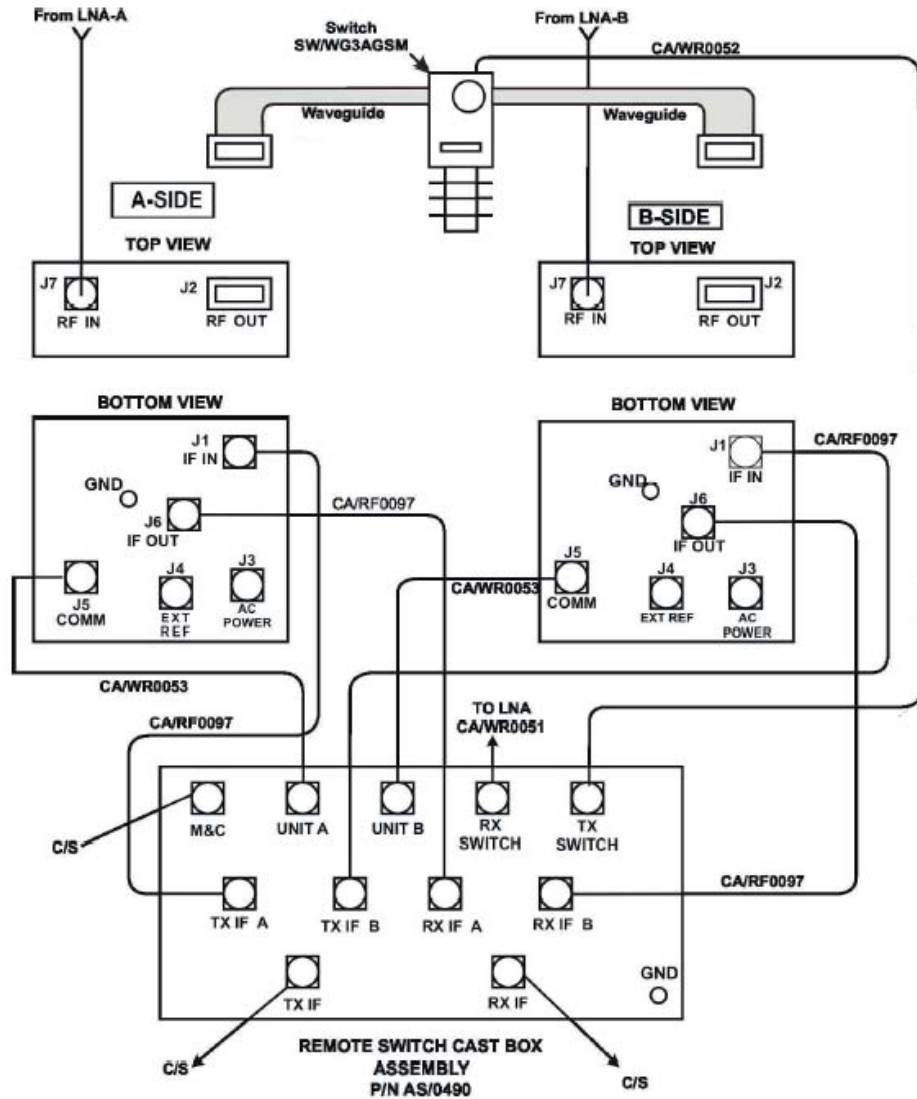
C.6 CABLE INSTALLATION

Refer to Figure C-21.

Care should be exercised in cable installation. Install the cables using the most direct route and secure with clamps and ties. Avoid all sharp bends.

Cable connectors used in outdoor applications must be sealed to avoid leakage, particularly N-type connectors. Moisture can seep into junctions at the plug end of the connector, between the fixed and movable parts, and where the cable connects to the connector.

Signal attenuation and possible loss of signal can occur in the presence of moisture. All cable junctions must be sealed with a self-amalgamating tape, such as 3M, Type 23 Scotch Self-Amalgamating tape, or equivalent, including military style (MS) connectors.



C/S = CUSTOMER - SUPPLIED

Figure C-21. Cable Installation