# CHAPTER I

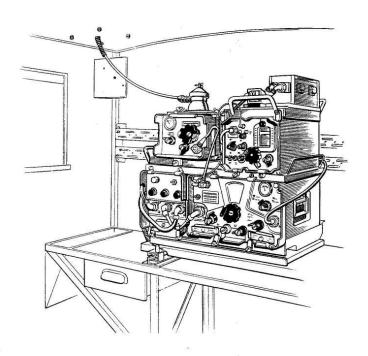


FIG. 1 TYPICAL INSTALLATION CI1-R210

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#### Section 1 SET DATA

Type of set	Separate transmitter and receiver. C11 is an HF transmitter for voice or morse telegraphy. R210 is designed for use with C11 but it can be operated alone.
Frequency	2-16 Mc/s
Range	Rod aerial - up to 25 miles voice or 50 miles morse. Wire aerial - skywave.
Power supply	24V battery and separate PSU. Two 12V 75 Ah batteries in series give approximately $5\frac{1}{2}$ hours on a send-receive ratio of 1:5.
Aerials	Normally a 12-ft. rod, on the vehicle or remotely within 150 ft. At the halt a 16-ft. rod, a vertical radiator, open wire or wire dipole can be used.

#### Section 2 C11 - R210 KITS

### (1) T C11 set kit No. 1 (ZA 46319/1) For details see CES No. 42456

C11 (Z1/5820-99-911-0849) Connector 12 pt. No. 90, 7-in.type HB (ZA 46824)	Set to PSU (angle each end) Connector No. 35
Supply unit transformer rotary 24V (ZA 46320)	
User handbook for C11	W.O. Code No. 12052

#### (2) R210 set kit No. 1 (ZA 46729/1)

Reception set R210 (ZA 46729)	
User handbook for R210	W.O. Code No. 12051

NOTE - If the C11-R210 station is being made up by converting an old type "made to measure" installation, the items in paragraphs 1 and 2 above are required from the old kit.

## (3) Installation kit electronic equipment C11-R210 (Z1/5820-99-949-2923) For details see CES No. 42902

Description	Remarks	Fig.
Aerial base No. 31 (ZA 49827)		11
Aerial base and bracket assy. No. 3 (ZA 53000)	For remote aerial	2
Acrial element, 4-ft. (Z1/5820-99-919-1166) (ZA 44684) (two)	Antennae rod 'F' (top section)	
Aerial tuning unit No. 7 (ZA 46321)		2
Beads plastic (ZA 50359) (50)	For HF aerial connector	
Cable assy. co-axial, 2-ft. Z1/5995-99-949-1230) (ZA 54390)	C11 to ATU. Connector No. 18	5

(21/5995-99-949-1016) (ZA 47041)  Cable assy. 4-condr. 3-ft. (Z1/5995-99-949-1478)  Cable assy. 12-condr. 3-ft. (Z1/5995-99-94-1478)  Cable elec. P11 (Y3/WB 1042) (4 yds.)  Carrier fixed (ZB 15000) and free (ZB 15001)  Camp aerial base (Z1/5820-99-949-3038)  Clamp aerial base (Z1/5820-99-949-3038)  Clamp arbher, 3/16-in. grip (ZA 50363)  Connector co-exial, 27-in. (ZA 55289) (ZA 51333)  Connector coper braid, 21-in. (ZA 55289) (ZA 51333)  Connector coper braid, 21-in. (ZA 53546)  Connector in/2-pt. No. 3, 6-ft. type C (ZA 51321)  Coupler plug and chain assy. (two) (ZA 14946)  Frame metal, 13.7/16 x 7.13/16 x 1.7/16 (ZA 51335)  Coupler plug and chain assy. (two) (ZA 14946)  Frame metal, 13.7/16 x 7.13/16 x 1.7/16 (ZA 51335)  Func link cartridge, 5A 440V (X2/5920-99-059-0110)  Fuse link cartridge, 3A 440V (X2/5920-99-059-0110)  Fuse link cartridge, 5A 450V (X2/5920-99-059-0110)  Fuse link ca	Part 3 C11 - R210 Description	Remarks	Fig
(21/5999-99-949-3037)  Cable elec. P11 (73/78 1042) (L yds.)  Carrier fixed (ZB 1500C) and free (ZB 15001)  Carrier fixed (ZB 1500C) and free (ZB 15001)  Carrier set No. 32 Ek.2 (ZB 14992)  Clamp MS. 1 x 1 x 14 x 11/32 (ZB 14994)  Connector co-axial, Z7-in. (ZA 5528)  Connector single No. 228, 12-in. (ZA 553546)  Connector 4/2-pt. No. 3, 6-ft. type C  (ZA 51321)  Coupler plug and chain assy. (two) (ZA 14946)  Frame metal, 13-7/16 x 7.13/16 x 1.7/16 (ZA 51335)  Fuse link cartridge, 500 mm 4440V  (X2/5920-99-059-0108)  Fuse link cartridge, 3A 440V (X2/5920-99-059-0110)  Fuse link cartridge, 3A 440V (X2/5920-99-059-0111)  Fuse link cartridge, 3A 440V (X2/5920-99-059-0111)  Fuse link cartridge, 3A 440V (X2/5920-99-059-0112)  Fuse link cartridge, 3A 440V (X2/5920-99-059-0112)  Fuse link cartridge, 5A 5400 (X2/5920-99-059-0112)  Fuse link cartridge	Cable assy. co-axial 50-ft. (Z1/5995-99-949-1016) (ZA 47041)	C11 to remote ATU	
Calfeder Part (Y3/WE 1042) (4 yds.)  Carrier fixed (ZB 15000) and free (ZB 15001)  Carrier set No. 32 Mk.2 (ZB 14992)  Clamp aerial base (Z1/5820-99-949-3038)  Clamp ws, 1 x 1 x 14 x 14 x 14/32 (ZB 14994)  Clamp rubber, 3/16-in. grip (ZA 50363)  Connector co-axial, 27-in. (ZA 55289) (ZA 51333)  Connector coxial, 27-in. (ZA 55289) (ZA 51333)  Connector coxial, 27-in. (ZA 55289) (ZA 51333)  Connector coxial, 27-in. (ZA 55364)  Connector single No. 228, 12-in. (ZA 53546)  Connector 1/2-pt. No. 3, 6-ft. type C  (ZA 51321)  Coupler plug and chain assy. (two) (ZA 14946)  Frame metal, 13.7/16 x 7.13/16 x 1.7/16 (ZA 51335)  Coupler plug and chain assy. (two) (ZA 14946)  Frame link cartridge, 500 mA 44.0V  (X2/5920-99-059-0108)  Fuse link cartridge, 3A 44.0V (X2/5920-99-059-0110)  Fuse link cartridge, 3A 44.0V (X2/5920-99-059-0111)  Fuse link cartridge, 3A 44.0V (X2/5920-99-059-0111)  Fuse link cartridge, 50. 44.0V (X2/5920-99-059-0112)  Fuse link cartridge, 50	Cable assy. 4-condr. 3-ft. (21/5995-99-949-3037)		5
Carrier fixed (ZE 15000) and free (ZE 15001)  Carrier set No. 32 Mk.2 (ZE 14992)  Clamp MS, 1 x 1 x 14 x 11/32 (ZE 14904)  Clamp mS, 1 x 1 x 14 x 11/32 (ZE 14904)  Clamp rubber, 3/16-in. grip (ZA 50363)  Connector co-exial, 27-in. (ZA 55289) (ZA 51333)  Connector copper braid, 21-in. (ZA 47169)  Connector w/2-pt. No. 3, 6-ft. type C  (ZA 51321)  Coupler plug and chain assy. (two) (ZA 14946)  Frame metal, 13.7/16 x 7.13/16 x 1.7/16 (ZA 51335)  Coupler plug and chain assy. (two) (ZA 14946)  Frame metal, 13.7/16 x 7.13/16 x 1.7/16 (ZA 51335)  Coupler plug and chain assy. (two) (ZA 14946)  Frame metal, 13.7/16 x 7.13/16 x 1.7/16 (ZA 51335)  Frame metal, 13.7/16 x 7.13/16 x 1.7/16 (ZA 51335)  Fuse link cartridge, 500 mA 440V  (XZ/5920-99-059-0108)  Fuse link cartridge, 5A 440V (XZ/5920-99-059-0110)  Fuse link cartridge, 5A 440V (XZ/5920-99-059-0111)  Fuse link cartridge, 5A 440V (XZ/5920-99-059-0112)  Interconnecting box 4-way No. 1  (Z1/5820-99-949-1173) (ZA 51311)  Key telegraph (Z1/5820-99-949-1174) (ZA 51445)  Lamp fil. 8V 1.2W MES (X5/6240-99-955-1246)  Leed counterpoise 25-ft. (ZA 51453)  Lug special No. 1 (ZA 4551)  Nut gland and washer set (ZA 50365)  Flate plastic, ½ x 5 x ½-in. thick (ZA 50358)  Rod earth MS, 36-in. (Y1/5975-99-943-9502)  Tray assy. MS, 13 x 10% x 1.15/16 (ZB 14941)  Tray metal, 22% x 13½ x 5½ (ZB 14927)  Tool adjusting (ZA 50362)  Washer assy. 2-in. dia (Z1/5820-99-949-3044)  For 'K' box  See part 2 page 11  10 used on carrier and tray  10 une mote aerial pace in  10 used on carrier and tray  10 une mote aerial pace in  10 used on carrier of testile  11 to R210 (Conn. No.19)  12 uru to table (Conn. No.19)  12 uru to table (Conn. No.19)  13 uru to	Cable assy. 12-condr. 3-ft. (Z1/5995-99-949-1478)		5
Carrier set No. 32 Mk.2 (IB 14992)  Clamp aerial base (Inc. 24/5820-99-949-3038)  Clamp MS., 1 x 1 x 1½ x 11/32 (IB 14904)  Clamp rubber, 3/16-in. grip (IA 50363)  Connector co-exial, 27-in. (IA 55289) (IA 51533)  Connector co-exial, 27-in. (IA 55289) (IA 51533)  Connector copper braid, 24-in. (IA 47169)  Connector single No. 228, 12-in. (IA 53546)  Connector th/2-pt. No. 3, 6-ft. type C  (IA 51321)  Coupler plug and chain assy. (Inc.) (IA 14946)  Frame metal, 13.7/16 x 7.15/16 x 1.7/16 (IA 51355)  Frame metal, 13.7/16 x 7.15/16 x 1.7/16 (IA 51355)  Fuse link cartridge, 500 ml 440V  (IX2/5920-99-059-0108)  Fuse link cartridge, 3A 440V (IX2/5920-99-059-0110)  Fuse link cartridge, 5A 440V (IX2/5920-99-059-0111)  F	Cable elec. P11 (Y3/WB 1042) (4 yds.)	HF aerial connector (Conn. 1)	5
Clamp aerial base (Z1/5820-99-949-3038)  Clamp MS, 1 x 1 x 1 x 11/32 (ZB 14994)  Clamp rubber, 3/16-in. grip (ZA 50363)  Connector co-axial, 27-in. (ZA 55289) (ZA 51333)  Connector copper braid, 21-in. (ZA 47169)  Connector single No. 228, 12-in. (ZA 55546)  Connector in/2-pt. No. 3, 6-ft. type C  (ZA 51321)  Coupler plug and chain assy. (two) (ZA 14946)  Frame metal, 13.7/16 x 7.15/16 x 1.7/16 (ZA 51335)  Fuse link cartridge, 500 mA 440V  (XZ/5920-99-059-0108)  Fuse link cartridge, 3A 440V (XZ/5920-99-059-0110)  Fuse link cartridge, 3A 440V (XZ/5920-99-059-0110)  Fuse link cartridge, 5A 440V (XZ/5920-99-059-0110)  Fuse land on carrier and tray  Fut to table (conn. No. 12)  On remote a	Carrier fixed (ZB 1500C) and free (ZB 15001)	For 'K' box	
Clamp MS, 1 x 1 x 11 x 11/32 (ZB 14904)  Clamp rubber, 3/16-in. grip (ZA 50365)  Connector co-exial, 27-in. (ZA 55289) (ZA 51333)  Connector copper braid, 21-in. (ZA 47169)  Connector single No. 228, 12-in. (ZA 53546)  Connector 4/2-pt. No. 3, 6-ft. type C  (ZA 51321)  Coupler plug and chain assy. (two) (ZA 14946)  Frame metal, 13.7/16 x 7.13/16 x 1.7/16 (ZA 51335)  Fuse link cartridge, 500 mA 440V  (XZ/5920-99-059-0108)  Fuse link cartridge, 24 440V (XZ/5920-99-059-0110)  Fuse link cartridge, 3A 440V (XZ/5920-99-059-0111)  Fuse link cartridge, 5A 440V (XZ/5920-99-059-0111)  Fuse link cartridge, 5A 440V (XZ/5920-99-059-0112)  Interconnecting box 4-way No. 1  (Z1/5820-99-949-1173) (ZA 51311)  Key telegraph (21/5820-99-949-1174) (ZA 51445)  Lamp fil. 8V 1.2% MES (X5/6240-99-995-1246)  Lead counterpoise 25-ft. (ZA 51453)  Lug special No. 1 (ZA 4551)  Nut gland and washer set (ZA 50365)  Plate plastic, ½ x 5 x ½-in. thick (ZA 50358)  Rod earth MS, 36-in. (Y1/5975-99-943-9502)  Tray assy. MS, 13 x 100 x 1.15/16 (ZB 14941)  Tray metal, 22½ x 13½ x 5½ (ZB 14927)  Tool adjusting (ZA 50362)  Washer assy. 2-in. dia (Z1/5820-99-949-3044)  10 used on carrier and tray  For aerial connector (eight)  C11 to R210 (Conn. No. 12)  On remote aerial (part 4 page 27)  ITU to table (Conn. No. 12)  On remote aerial (part 4 page 27)  ITU to table (Conn. No. 12)  On remote aerial (part 4 page 27)  ITU to table (Conn. No. 12)  On remote aerial (part 4 page 27)  ITU to table (Conn. No. 12)  On remote aerial (part 4 page 27)  ITU to table (Conn. No. 12)  On remote aerial connector (eight)  On remote aerial (part 4 page 27)  ITU to table (Conn. No. 12)  On remote aerial (part 4 page 27)  ITU to table (Conn. No. 12)  On remote aerial (part 4 page 27)  ITU to table (Conn. No. 12)  On remote aerial (part 4 page 27)  ITU to table (Conn. No. 12)  On remote aerial (part 4 page 27)  ITU to table (Conn. No. 12)  ITU to table (Conn. No. 12)  On remote aerial (part 4 page 27)  ITU to table (Conn. No. 12)  ITU to table (Conn. No. 12)  On remote aeria	Carrier set No. 32 Mk.2 (IB 14992)		2
Clamp rubber, 3/16-in. grip (ZA 50363)  Connector co-axial, 27-in. (2A 55289) (ZA 51333)  Connector copper braid, 21-in. (ZA 47169)  Connector single No. 228, 12-in. (ZA 53546)  Connector 4/2-pt. No. 3, 6-ft. type C  (ZA 51321)  Coupler plug and chain assy. (two) (ZA 14946)  Frame metal, 13.7/16 x 7.13/16 x 1.7/16 (ZA 51335)  Fuse link cartridge, 500 mA 44.0V  (X2/5920-99-059-0108)  Fuse link cartridge, 3A 44.0V (X2/5920-99-059-0110)  Fuse link cartridge, 3A 44.0V (X2/5920-99-059-0111)  Fuse link cartridge, 5A 44.0V (X2/5920-99-059-0111)  Fuse link cartridge, 5A 44.0V (X2/5920-99-059-0111)  Fuse link cartridge, 5A 44.0V (X2/5920-99-059-0112)  Interconnecting box 4-way No. 1  (Z1/5820-99-949-1173) (ZA 51311)  Key telegraph (Z1/5820-99-949-1174) (ZA 51445)  Lamp fil. 8V 1.2W MES (X5/6240-99-995-1148)  Lamp fil. 12V 3.6W MES (X5/6240-99-995-1246)  Lamp fil. 12V 3.6W MES (X5/6240-99-995-1148)  Lamp fil. 12V 3.6W MES (X5/6240-99-995-	Clamp aerial base (Z1/5820-99-949-3038)	See part 2 page 11	
Connector co-axial, 27-in. (2A 55289) (ZA 51333)  Connector copper braid, 21-in. (ZA 47169)  Connector single No. 228, 12-in. (ZA 53546)  Connector 4/2-pt. No. 3, 6-ft. type C  (ZA 51321)  Coupler plug and chain assy. (two) (ZA 14946)  Frame metal, 13.7/16 x 7.13/16 x 1.7/16 (ZA 51335)  Frame metal, 13.7/16 x 7.13/16 x 1.7/16 (ZA 51335)  Frame metal, 13.7/16 x 7.13/16 x 1.7/16 (ZA 51335)  Fuse link cartridge, 500 mA 440V  (ZZ/5920-99-059-0108)  Fuse link cartridge, 3A 440V (X2/5920-99-059-0110)  Fuse link cartridge, 3A 440V (X2/5920-99-059-0111)  Fuse link cartridge, 5A 440V (X2/5920-99-059-0111)  Fuse link cartridge, 5A 440V (X2/5920-99-059-0112)  Fuse link cartridge, 5A 440V (X2/5920	Clamp MS, 1 x 1 x 14 x 11/32 (ZB 14904)	10 used on carrier and tray	2
Connector copper braid, 21-in. (ZA 47169)  Connector single No. 228, 12-in. (ZA 55546)  Connector 4/2-pt. No. 3, 6-ft. type C  (ZA 51321)  Coupler plug and chain assy. (two) (ZA 14946)  Frame metal, 13.7/16 x 7.13/16 x 1.7/16 (ZA 51335)  Fuse link cartridge, 500 mA 440V  (X2/5920-99-059-0108)  Fuse link cartridge, 3A 440V (X2/5920-99-059-0110)  Fuse link cartridge, 5A 440V (X2/5920-99-059-0111)  Fuse link cartridge, 5A 440V (X2/5920-99-059-0112)  Interconnecting box 4-way No. 1  (Z1/5820-99-949-1173) (ZA 51311)  Key telegraph (Z1/5820-99-949-1174) (ZA 51445)  Lamp fil. 8V 1.2W MES (X5/6240-99-995-1146)  Lead counterpoise 25-ft. (ZA 51453)  Lead counterpoise 25-ft. (ZA 51453)  Lead and washer set (ZA 50365)  Plate plastic, ½ x 5 x ½-in. thick (ZA 50358)  Rod earth MS, 36-in. (Y1/5975-99-943-9502)  Tray assy. MS, 13 x 10% x 1.15/16 (ZB 14941)  Tray metal, 22½ x 13½ x 5½ (ZB 14927)  Tool adjusting (ZA 50362)  Washer assy. 2-in. dia (Z1/5820-99-949-3044)  ATU to table (Conn. No. 12)  On remote aerial (part 4 page 27)  LT box to battery (4-way angle socket - two lugs) (Conn.No. 69)  LT box to battery (4-way angle socket - two lugs) (Conn.No. 69)  LT box to battery (4-way angle socket - two lugs) (Conn.No. 69)  LT box to battery (4-way angle socket - two lugs) (Conn.No. 69)  LT box to battery (4-way angle socket - two lugs) (Conn.No. 69)  LT box to battery (4-way angle socket - two lugs) (Conn.No. 69)  LT box to battery (4-way angle socket - two lugs) (Conn.No. 69)  LT box to battery (4-way angle socket - two lugs) (Conn.No. 69)  LT box to battery (4-way angle socket - two lugs) (Conn.No. 69)  LT box to battery (4-way angle socket - two lugs) (Conn.No. 69)  LT box to battery (4-way angle socket - two lugs) (Conn.No. 69)  LT box to battery (4-way angle socket - two lugs) (Conn.No. 69)  LT box to battery (4-way angle socket - two lugs) (Conn.No. 69)  LT box to battery (4-way angle socket - two lugs) (Conn.No. 69)	Clamp rubber, 3/16-in. grip (ZA 50363)	For aerial connector (eight)	
Connector single No. 228, 12-in. (ZA 53546)  Connector 4/2-pt. No. 3, 6-ft. type C  (ZA 51321)  Coupler plug and chain assy. (two) (ZA 14946)  Frame metal, 13.7/16 x 7.13/16 x 1.7/16 (ZA 51335)  Fune link cartridge, 500 mA 44.0V  (XZ/5920-99-059-0168)  Fuse link cartridge, 3A 44.0V (XZ/5920-99-059-0110)  Fuse link cartridge, 54 44.0V (XZ/5920-99-059-0111)  Fuse link cartridge, 54 44.0V (XZ/5920-99-059-0111)  Fuse link cartridge, 5A 44.0V (XZ/5920-99-059-0112)  Fuse link cartridge, 5A 44.0V (XZ/5920-99-05	Connector co-axial, 27-in. (ZA 55289) (ZA 51333)	C11 to R210 (Conn. No.19)	5
Connector 4/2-pt. No. 3, 6-ft. type C  (ZA 51321)  Coupler plug and chain assy. (two) (ZA 14946)  Frame metal, 13.7/16 x 7.13/16 x 1.7/16 (ZA 51335)  Fuse link cartridge, 500 mA 440V  (X2/5920-99-059-0108)  Fuse link cartridge, 3A 440V (X2/5920-99-059-0110)  Fuse link cartridge, 3A 440V (X2/5920-99-059-0110)  Fuse link cartridge, 5A 440V (X2/5920-99-059-0111)  Fuse link cartridge, 5A 440V (X2/5920-99-059-0112)  Fuse link cartridge, 5A 440V (X2/5920-99-059-0110)  ### spare  ### If box to battery (4-way angle socket - two lugs)  Gonn.No. 69)  Join cables co-axial 50-ft.  Mounts ATU on tray metal.  ## spare  ### If box to battery (4-way angle socket - two lugs)  ## Conn.No. 69)  Join cables co-axial 50-ft.  Mounts ATU on tray metal.  ## spare  ## Spare  ### If box to battery (4-way angle socket - two lugs)  ## Spare  ## Spare  ## If box to battery (4-way angle socket - two lugs)  ## Spare  ## Spare  ## Spare  ## If box to battery (1-22 10-11  ## Spare  ## Spare  ## Spare  ## Fuse link cartridge, 50	Connector copper braid, 21-in. (ZA 47169)	ATU to table (Conn. No. 12)	5
Coupler plug and chain assy. (two) (ZA 14946)  Frame metal, 13.7/16 x 7.15/16 x 1.7/16 (ZA 51335)  Fuse link cartridge, 500 mA 440V (X2/5920-99-059-0108)  Fuse link cartridge, 3A 440V (X2/5920-99-059-0110)  Fuse link cartridge, 5A 440V (X2/5920-99-059-0110)  Fuse link cartridge, 5A 440V (X2/5920-99-059-0111)  Fuse link cartridge, 5A 440V (X2/5920-99-059-0112)  Fuse link cartridge, 5A 540V (X2/5920-99-059-0112)  Fuse link cartridge, 5A 5A 511  Fuse link cartridge, 5D 510  Fuse lin	Connector single No. 228, 12-in. (ZA 53546)	On remote aerial (part 4 page 27	)
Coupler plug and chain assy. (two) (ZA 14946)  Frame metal, 13.7/16 x 7.15/16 x 1.7/16 (ZA 51335)  Fuse link cartridge, 500 mA 440V (X2/5920-99-059-0108)  Fuse link cartridge, 3A 440V (X2/5920-99-059-0110)  Fuse link cartridge, 5A 440V (X2/5920-99-059-0110)  Fuse link cartridge, 5A 440V (X2/5920-99-059-0111)  Fuse link cartridge, 5A 440V (X2/5920-99-059-0112)  Interconnecting box 4-way No. 1 (Z1/5820-99-949-1173) (ZA 51311)  Key telegraph (Z1/5820-99-949-1174) (ZA 51445)  Lamp fil. 8V 1.2W MES (X5/6240-99-995-1148)  Lamp fil. 12V 3.6W MES (X5/6240-99-995-1148)  Lead counterpoise 25-ft. (ZA 51453)  Lug special No. 1 (ZA 4551)  Nut gland and washer set (ZA 50365)  Plate plastic, ½ x 5 x ½-in. thick (ZA 50358)  Rod earth MS, 36-in. (Y1/5975-99-943-9502)  Tray assy. MS, 13 x 10½ x 1.15/16 (ZE 14941)  Tray metal, 22½ x 13½ x 5½ (ZB 14927)  Tool adjusting (ZA 50362)  Washer assy. 2-in. dia (Z1/5820-99-949-3044)  Join cables co-axial 50-ft.  Mounts ATU on tray metal.  4 spare  4 spare  1/4 box with 4-pt. input (See note on page 7)  1/5 box 3 spare  3 spare  5 see part 4 page 26  See part 2 page 10  Under aerial base No. 31  See part 4 page 26  Mounts boxes on R210  Mounts ATU, etc., on C11  Screws lead into aerial base  6 secure carrier to table	Connector 4/2-pt. No. 3, 6-ft. type C (ZA 51321)		1 5 )
Frame metal, 13.7/16 x 7.13/16 x 1.7/16 (ZA 51335)  Fune link cartridge, 500 mA 440V (X2/5920-99-059-0108)  Fune link cartridge, 24 440V (X2/5920-99-059-0110)  Fuse link cartridge, 3A 440V (X2/5920-99-059-0111)  Fuse link cartridge, 5A 440V (X2/5920-99-059-0111)  Fuse link cartridge, 5A 440V (X2/5920-99-059-0112)  Interconnecting box 4-way No. 1 (Z1/5820-99-949-1173) (ZA 51311)  Key telegraph (Z1/5820-99-949-1174) (ZA 51445)  Lamp fil. 8V 1.2W MES (X5/6240-99-995-1148)  Lamp fil. 12V 3.6W MES (X5/6240-99-995-1246)  Lead counterpoise 25-ft. (ZA 51453)  Lug special No. 1 (ZA 4551)  Nut gland and washer set (ZA 50365)  Plate plastic, ½ x 5 x ½-in. thick (ZA 50358)  Rod earth MS, 36-in. (Y1/5975-99-943-9502)  Tray assy. MS, 13 x 10½ x 1.15/16 (ZB 14941)  Tray metal, 22¼ x 13½ x 5½ (ZB 14927)  Tool adjusting (ZA 50362)  Washer assy. 2-in. dia (Z1/5820-99-949-3044)  Mounts ATU on tray metal.  4 spare  4 spare  4 spare  4 spare  4 spare  5 spare  5 spare  5 see note on page 7)  1K' box  See note on page 7)  1K' box  See part 4 page 26  See part 2 page 10  Under aerial base No. 31  See part 4 page 26  Mounts boxes on R210  Mounts ATU, etc., on C11  Screws lead into aerial base  6 secure carrier to table	***		۱ 5
Fuse link cartridge, 500 mA 440V (X2/5920-99-059-0108)  Fuse link cartridge, 2A 440V (X2/5920-99-059-0110)  Fuse link cartridge, 3A 440V (X2/5920-99-059-0111)  Fuse link cartridge, 5A 440V (X2/5920-99-059-0111)  Fuse link cartridge, 5A 440V (X2/5920-99-059-0112)  Interconnecting box 4-way No. 1 (Z1/5820-99-949-1173) (ZA 51311)  Key telegraph (Z1/5820-99-949-1174) (ZA 51445)  Lamp fil. 8V 1.2W MES (X5/6240-99-995-1148)  Lamp fil. 12V 3.6W MES (X5/6240-99-995-1246)  Lead counterpoise 25-ft. (ZA 51453)  Lug special No. 1 (ZA 4551)  Nut gland and washer set (ZA 50365)  Plate plastic, ½ x 5 x ½-in. thick (ZA 50358)  Rod earth MS, 36-in. (Y1/5975-99-943-9502)  Tray metal, 22¾ x 13½ x 1.15/16 (ZB 14941)  Tray metal, 22¾ x 13½ x 5½ (ZB 14927)  Tool adjusting (ZA 50362)  Washer assy. 2-in. dia (Z1/5820-99-949-3044)  4 spare  4 spare  4 spare  4 spare  4 spare  4 spare  5 bx with 4-pt. input (See note on page 7)  1K' box  3 spare  5 sep art 4 page 26  Mounts appear 10  Under aerial base No. 31  See part 4 page 26  Mounts boxes on R210  Mounts ATU, etc., on C11  Screws lead into aerial base  6 secure carrier to table	Coupler plug and chain assy. (two) (ZA 14946)	Join cables co-axial 50-ft.	
(X2/5920-99-059-0108)  Fuse link cartridge, 2A 440V (X2/5920-99-059-0110)  Fuse link cartridge, 3A 440V (X2/5920-99-059-0111)  Fuse link cartridge, 5A 440V (X2/5920-99-059-0112)  Fuse link cartridge, 5A 440V (X2/5920-99-059-0112)  Interconnecting box 4-way No. 1 (Z1/5820-99-949-1173) (ZA 51311)  Key telegraph (Z1/5820-99-949-1174) (ZA 51445)  Lamp fil. 8V 1.2W MES (X5/6240-99-995-1148)  Lamp fil. 12V 3.6W MES (X5/6240-99-995-1246)  Lead counterpoise 25-ft. (ZA 51453)  Lug special No. 1 (ZA 4551)  Nut gland and washer set (ZA 50365)  Plate plastic, ½ x 5 x ½-in. thick (ZA 50358)  Rod earth MS, 36-in. (Y1/5975-99-943-9502)  Tray assy. MS, 13 x 10½ x 1.15/16 (ZB 14941)  Tray metal, 22¾ x 13½ x 5½ (ZB 14927)  Tool adjusting (ZA 50362)  Washer assy. 2-in. dia (Z1/5820-99-949-3044)  # spare  4 spare  # spare  Lif box with 4-pt. input (See note on page 7)  *K' box  3 spare  See part 4 page 26  See part 2 page 10  Under aerial base No. 31  See part 4 page 26  Mounts boxes on R210  Mounts ATU, etc., on C11  Screws lead into aerial base 6 secure carrier to table	Frame metal, 13.7/16 x 7.13/16 x 1.7/16 (ZA 51335)	Mounts ATU on tray metal.	2
Fuse link cartridge, 3A 440V (X2/5920-99-059-0111)  Fuse link cartridge, 5A 440V (X2/5920-99-059-0112)  Interconnecting box 4-way No. 1 (Z1/5820-99-949-1173) (ZA 51311)  Key telegraph (Z1/5820-99-949-1174) (ZA 51445)  Lamp fil. 8V 1.2W MES (X5/6240-99-955-1148)  Lamp fil. 12V 3.6W MES (X5/6240-99-955-1246)  Lead counterpoise 25-ft. (ZA 51453)  Lead counterpoise 25-ft. (ZA 51453)  Lug special No. 1 (ZA 4551)  Nut gland and washer set (ZA 50365)  Plate plastic, ½ x 5 x ½-in. thick (ZA 50358)  Rod earth MS, 36-in. (Y1/5975-99-943-9502)  Tray assy. MS, 13 x 10 x 1.15/16 (ZB 14941)  Tray metal, 22 x 13 x 13 x 5 x (ZB 14927)  Tool adjusting (ZA 50362)  Washer assy. 2-in. dia (Z1/5820-99-949-3044)  4 spare  4 spare  4 spare  17 box with 4-pt. input (See note on page 7)  18 box  See part 2 page 10  Under aerial base No. 31  See part 2 page 10  Under aerial base No. 31  See part 4 page 26  Mounts boxes on R210  Mounts ATU, etc., on C11  Screws lead into aerial base 6 secure carrier to table	Fuse link cartridge, 500 mA 440V (X2/5920-99-059-0108)	4 spare	
Fuse link cartridge, 5A 440V (X2/5920-99-059-0112)  Interconnecting box 4-way No. 1 (Z1/5820-99-949-1173) (ZA 51311)  Key telegraph (Z1/5820-99-949-1174) (ZA 51445)  Lamp fil. 8V 1.2W MES (X5/6240-99-995-1148)  Lamp fil. 12V 3.6W MES (X5/6240-99-995-1246)  Lead counterpoise 25-ft. (ZA 51453)  Lug special No. 1 (ZA 4551)  Nut gland and washer set (ZA 50365)  Plate plastic, ½ x 5 x ½-in. thick (ZA 50358)  Rod earth MS, 36-in. (Y1/5975-99-943-9502)  Tray assy. MS, 13 x 10½ x 1.15/16 (ZB 14941)  Tray metal, 22½ x 13½ x 5½ (ZB 14927)  Tool adjusting (ZA 50362)  Washer assy. 2-in. dia (Z1/5820-99-949-3044)  # spare  LIT box with 4-pt. input (See note on page 7)  "K' box  3 spare  See part 4 page 26  Under aerial base No. 31  See part 2 page 10  Under aerial base No. 31  See part 4 page 26  Mounts boxes on R210  Mounts ATU, etc., on C11  Screws lead into aerial base  6 secure carrier to table	Fuse link cartridge, 24 440V (X2/5920-99-059-0110)	4 spare	
Interconnecting box 4-way No. 1 (Z1/5820-99-949-1173) (ZA 51311)  Key telegraph (Z1/5820-99-949-1174) (ZA 51445)  Lamp fil. 8V 1.2W MES (X5/6240-99-995-1148)  Lamp fil. 12V 3.6W MES (X5/6240-99-995-1246)  Lead counterpoise 25-ft. (ZA 51453)  Lead counterpoise 25-ft. (ZA 51453)  Lug special No. 1 (ZA 4551)  Nut gland and washer set (ZA 50365)  Plate plastic, ½ x 5 x ½-in. thick (ZA 50358)  Rod earth MS, 36-in. (Y1/5975-99-943-9502)  Tray assy. MS, 13 x 10 x 1.15/16 (ZB 14941)  Tray metal, 22 x 1 x 1 x 5 x 1 (ZB 14927)  Tool adjusting (ZA 50362)  Washer assy. 2-in. dia (Z1/5820-99-949-3044)  III box with 4-pt. input (See note on page 7)  'K' box  3 spare  See part 4 page 26  See part 2 page 10  Under aerial base No. 31  See part 4 page 26  Mounts boxes on R210  Mounts ATU, etc., on C11  Screws lead into aerial base 6 secure carrier to table	Fuse link cartridge, 3A 440V (X2/5920-99-059-0111)	4 spare	
(Z1/5820-99-949-1173) (ZA 51311)  Key telegraph (Z1/5820-99-949-1174) (ZA 51445)  Lamp fil. 8V 1.2W MES (X5/6240-99-995-1148)  Lemp fil. 12V 3.6W MES (X5/6240-99-995-1246)  Lead counterpoise 25-ft. (ZA 51453)  Lead counterpoise 25-ft. (ZA 51453)  See part 4 page 26  Lug special No. 1 (ZA 4551)  Nut gland and washer set (ZA 50365)  Plate plastic, ½ x 5 x ½-in. thick (ZA 50358)  Rod earth MS, 36-in. (Y1/5975-99-943-9502)  Tray assy. MS, 13 x 10 x 1.15/16 (ZB 14941)  Tray metal, 22¾ x 13½ x 5½ (ZB 14927)  Tool adjusting (ZA 50362)  Washer assy. 2-in. dia (Z1/5820-99-949-3044)  (See note on page 7)  'K' box  3 spare  See part 4 page 26  Mounts apper 10  Under aerial base No. 31  See part 4 page 26  Mounts boxes on R210  Mounts ATU, etc., on C11  Screws lead into aerial base  6 secure carrier to table	Fuse link cartridge, 5A 440V (X2/5920-99-059-0112)	4 spare	
Lamp fil. 8V 1.2W MES (X5/6240-99-995-1148)  Lamp fil. 12V 3.6W MES (X5/6240-99-995-1246)  Lead counterpoise 25-ft. (ZA 51453)  Lug special No. 1 (ZA 4551)  Nut gland and washer set (ZA 50365)  Plate plastic, ½ x 5 x ½-in. thick (ZA 50358)  Rod earth MS, 36-in. (Y1/5975-99-943-9502)  Tray assy. MS, 13 x 10 x 1.15/16 (ZB 14941)  Tray metal, 22 x 13 x 15 x 5 (ZB 14927)  Tool adjusting (ZA 50362)  Washer assy. 2-in. dia (Z1/5820-99-949-3044)  3 spare  3 spare  See part 4 page 26  See part 2 page 10  Under aerial base No. 31  See part 4 page 26  Mounts boxes on R210  Mounts ATU, etc., on C11  Screws lead into aerial base 6 secure carrier to table	Interconnecting box 4-way No. 1 (Z1/5820-99-949-1173) (ZA 51311)		4
Lead counterpoise 25-ft. (ZA 51453)  Lead counterpoise 25-ft. (ZA 51453)  Lug special No. 1 (ZA 4551)  Nut gland and washer set (ZA 50365)  Plete plastic, ½ x 5 x ½-in. thick (ZA 50358)  Rod earth MS, 36-in. (Y1/5975-99-943-9502)  Tray assy. MS, 13 x 10 x 1.15/16 (ZB 14941)  Tray metal, 22 x 13 x 5 x (ZB 14927)  Tool adjusting (ZA 50362)  Washer assy. 2-in. dia (Z1/5820-99-949-3044)  3 spare  See part 4 page 26  See part 2 page 10  Under aerial base No. 31  See part 4 page 26  Mounts boxes on R210  Mounts ATU, etc., on C11  Screws lead into aerial base 6 secure carrier to table	Key telegraph (21/5820-99-949-1174) (ZA 51445)	'K' box	
Lead counterpoise 25-ft. (ZA 51453)  Lug special No. 1 (ZA 4551)  Nut gland and washer set (ZA 50365)  Plate plastic, ½ x 5 x ½-in. thick (ZA 50358)  Rod earth MS, 36-in. (Y1/5975-99-943-9502)  Tray assy. MS, 13 x 10½ x 1.15/16 (ZB 14941)  Tray metal, 22¾ x 13½ x 5½ (ZB 14927)  Tool adjusting (ZA 50362)  Washer assy. 2-in. dia (Z1/5820-99-949-3044)  See part 4 page 26  Under aerial base No. 31  See part 4 page 26  Mounts aerial base No. 31  See part 4 page 26  Mounts boxes on R210  Mounts ATU, etc., on C11  Screws lead into aerial base 6 secure carrier to table	Lamp fil. 8V 1.2W MES (X5/6240-99-995-1148)	3 spare	
Lug special No. 1 (ZA 4551)  Nut gland and washer set (ZA 50365)  Plate plastic, ½ x 5 x ½-in. thick (ZA 50358)  Rod earth MS, 36-in. (Y1/5975-99-943-9502)  Tray assy. MS, 13 x 10 x 1.15/16 (ZB 14941)  Tray metal, 22 x 13 x 15 x 5 (ZB 14927)  Tool adjusting (ZA 50362)  Washer assy. 2-in. dia (Z1/5820-99-949-3044)  See part 2 page 10  Under aerial base No. 31  See part 4 page 26  Mounts boxes on R210  Mounts ATU, etc., on C11  Screws lead into aerial base 6 secure carrier to table	Lamp fil. 12V 3.6W MES (X5/6240-99-995-1246)	3 spare	
Nut gland and washer set (ZA 50365)  Plate plastic, $\frac{1}{2} \times 5 \times \frac{1}{8}$ —in. thick (ZA 50358)  Rod earth MS, 36-in. (Y1/5975-99-943-9502)  Tray assy. MS, 13 $\times$ 10 $\frac{1}{8} \times 1.15/16$ (ZB 14941)  Tray metal, $22\frac{3}{4} \times 13\frac{1}{8} \times 5\frac{1}{8}$ (ZB 14927)  Tool adjusting (ZA 50362)  Washer assy. 2-in. dia (Z1/5820-99-949-3044)  See part 2 page 10  Under aerial base No. 31  See part 4 page 26  Mounts boxes on R210  Mounts ATU, etc., on C11  Screws lead into aerial base 6 secure carrier to table	Lead counterpoise 25-ft. (ZA 51453)	See part 4 page 26	
Plate plastic, ½ x 5 x ½-in. thick (ZA 50358)  Rod earth MS, 36-in. (Y1/5975-99-943-9502)  Tray assy. MS, 13 x 10 x 1.15/16 (ZB 14941)  Tray metal, 22 x 13 x 15 x 5 (ZB 14927)  Tool adjusting (ZA 50362)  Washer assy. 2-in. dia (Z1/5820-99-949-3044)  Under aerial base No. 31  See part 4 page 26  Mounts boxes on R210  Mounts ATU, etc., on C11  Screws lead into aerial base 6 secure carrier to table	Lug special No. 1 (ZA 4551)	See part 2 page 10	
Rod earth MS, 36-in. (Y1/5975-99-943-9502)  Tray assy. MS, 13 x 10 x 1.15/16 (ZB 14941)  Tray metal, 22 x 13 x 15 x 5 (ZB 14927)  Tool adjusting (ZA 50362)  Washer assy. 2-in. dia (Z1/5820-99-949-3044)  See part 4 page 26  Mounts boxes on R210  Mounts ATU, etc., on C11  Sorews lead into aerial base 6 secure carrier to table	Nut gland and washer set (ZA 50365)	See part 2 page 10	
Tray assy. MS, $13 \times 10^{3} \times 1.15/16$ (ZB 14941)  Mounts boxes on R210  Mounts atu, etc., on C11  Tool adjusting (ZA 50362)  Washer assy. 2-in. dia (Z1/5820-99-949-3044)  Mounts atu, etc., on C11  Screws lead into aerial base  6 secure carrier to table	Plate plastic, $\frac{1}{2} \times 5 \times \frac{1}{6}$ -in. thick (ZA 50358)	Under aerial base No. 31	
Tray metal, $22\frac{3}{4} \times 13\frac{1}{8} \times 5\frac{1}{8}$ (ZB 14927)  Mounts ATU, etc., on C11  Tool adjusting (ZA 50362)  Washer assy. 2-in. dia (Z1/5820-99-949-3044)  6 secure carrier to table	Rod earth MS, 36-in. (Y1/5975-99-943-9502)	See part 4 page 26	
Tray metal, $22\frac{3}{4} \times 13\frac{1}{8} \times 5\frac{1}{8}$ (ZB 14927)  Mounts ATU, etc., on C11  Tool adjusting (ZA 50362)  Washer assy. 2-in. dia (Z1/5820-99-949-3044)  6 secure carrier to table	Tray assy. MS, 13 x 10 x 1.15/16 (ZB 14941)	Mounts boxes on R210	4
Washer assy. 2-in. dia (Z1/5820-99-949-3044) 6 secure carrier to table		Mounts ATU, etc., on C11	2
washer assy. 2-1h. dia (21/7020-55-545-5044)	Tool adjusting (ZA 50362)	Screws lead into aerial base	
Wrench keys, 1/16-in. and 5/64-in. For control knob set screws	Washer assy. 2-in. dia (Z1/5820-99-949-3044)	6 secure carrier to table	2
	Wrench keys, 1/16-in. and 5/64-in.	For control knob set screws	

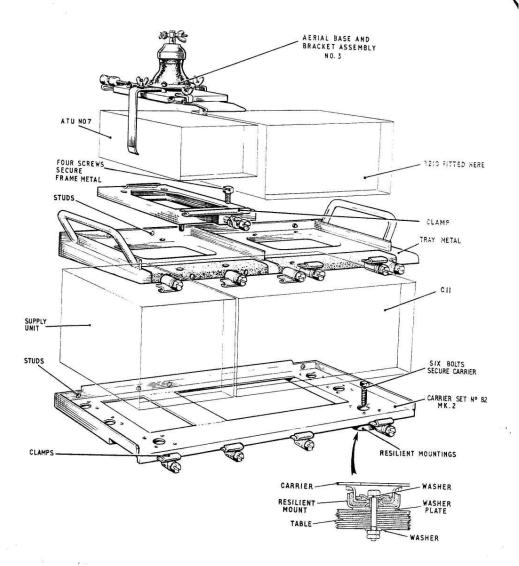


FIG. 2 FITTING CIT

## (6) Clamps MS, 1 x 1 x 1 x 1 x 11/32-in. grip

Fit four clamps to the front of the carrier as shown in Fig. 2. Hook them over the lower edges of C11 and PSU and tighten the screws to retain the assembly. Four more similar clamps secure the tray (paragraph 7) to the C11 and two secure the R210

## (7) <u>Tray metal, 22<sup>3</sup> x 13<sup>1</sup> x 5<sup>1</sup>/<sub>2</sub>-in</u>. (See section 4 below)

Fit the tray to the top of C11 and PSU, engaging studs and sockets. Secure it by means of four clamps hooked over the flange on the front panel of C14 and PSU and screwed down. Make sure that the tray is firmly attached, but do not over-dignen the clamp screws. The top of this tray is divided. The ATU is to be fitted in the side nearer the aerial, normally the IH side, to reduce the length of the serial connector. The R210 is to be fitted in the other side.

## Section 4 MODIFYING THE TRAY ON C11

If two C11 or C11/C13 are fitted side by side on the table the handles, being saw at an angle, may come into contact with handles on the adjacent tray. Trays metal.  $224 \times 154$  No. 2, under which the handles are moved to an upright position to provide more plearance between two assemblies on the table.

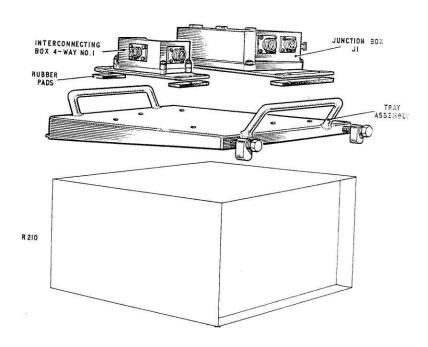


FIG. 4 FITTING THE JI, ETC., ON THE TOP OF THE R210

#### Section 5 INSTALLING ATU NO. 7

#### (4) Frame metal. 13.7/16 = 7.13/16 = 1.7/16

This frame carries the ATU. Mount it in the server the tray in the He as shown in fig. 2, with the server clamp towards the frame of the way. In a seckets in the rear of the frame with two stude on the way. Secure is a secure four server  $\frac{1}{4}$ -in. In  $\frac{1}{2}$ -in. long, inserted into tapped soles in the way.

#### (2) ATU No. 7

Mount the ATU on the frame with the rear panel flangs angazing in an array static rlap on the frame. Secure it by means of the clasp, which access over the color flange.

#### (3) Aerial base and bracket assembly No. 3

Mount this on the ATU by hooking it to the front panel flange and security with a clamp hooked over the rear panel flange. Fighten the side supports inward position. Connect the earth braid to the ATU earth terminal. This may be the assembly, between the top of the aerial base and the Tuestal terminal. This aerial lead is not used in the vehicle.

#### Section 5 LISTALLING R240 LEGISLATIV

Fit the R210 into the vacant part of the tray metal on the O11, engaging and relate with sockets in the rear of the set. Fit two screw clamps as in paragraph 5 an paragraph 5 to the front of the tray metal as shown in fig. 2. Hook the shamps over the flamps dong the lower edge of the R210 control panel and tighten the two screens to retain the assembly.

#### Section 7 INSTALLING JA AND UT BOY

#### (1) <u>J1</u>

Before mounting the tray assembly on the R210, bolt the J4 to it by means of four screws with nuts and washers. Place two rubber pads between the metal ends of the webbing base on the J4 and the tray. See fig. 4.

#### (2) Interconnecting box 4-way No. 1

Bolt this IT box to the tray by means of two screws with nuts and washers, is shown in fig. 4, with two rubber pads between box and tray and the cut-away side of the box towards the J1.

NOTE - Three different III boxes are used in the installations described in this handbook. See Part 1 page 9. The box for the C11 has three 4-way connections and one 2-way.

#### (3) Tray assembly MS. 13 x 10% x 1.15/16-in.

After bolting the above two boxes to this tray, mount the tray on the top of the R210. Engage two studs with sockets in the rear of the set and secure two clamps over two corresponding screw heads in the upper corners of the set front panel. Ensure that the tray is firmly attached.

#### (4) 'E' box in two-set installations

If two sets are installed, the two Jis can be connected to an 'E' box and controlled by one operator. See part 4 page 4. Bolt 'E' and MRRB boxes to the slotted angle framework.

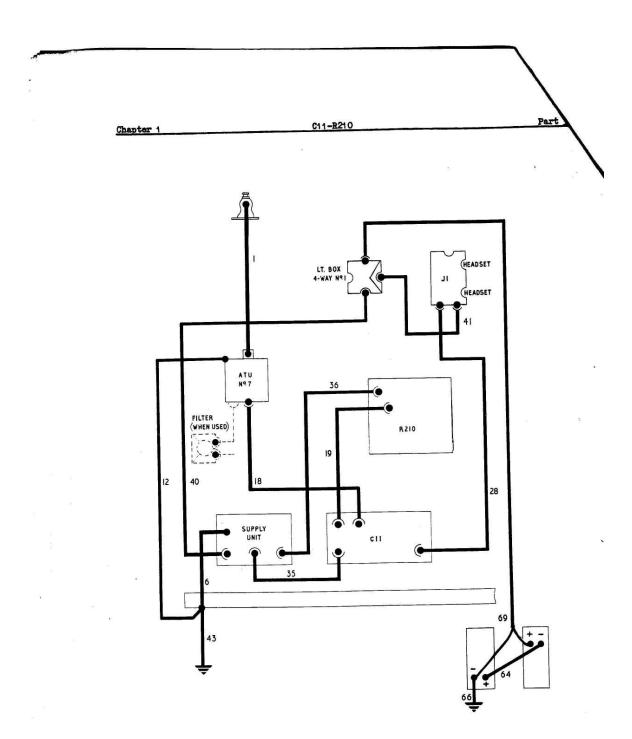


FIG. 5 CONNECTOR DIAGRAM C11-R210

#### Section 8 CONNECTORS

As shown in the typical installation in fig. 1 and the ground station in fig. 6.

No. See Fig.5	Connector	Position	Kit See note below
1	HF aerial connector (Made up to suit the truck). See the relevant vehicle chapter).	External aerial base to ATU	1
6	Copper braid, 103-in. (Z1/5995-99-949-1055) (ZA 46904)	PSU to bolt in LH end of table frame	M
12	Copper braid, 21-in. (ZA47169)	ATU to bolt in table frame	I
18	Coaxial, 2-ft. (Z1/5995-99-949-1230)	ATU to C11	I
19	Coarial, 27-in. (ZA51333)	C11 to R210	1
28	12-condr., 3-ft.6-in. (Z1/5995-99-949-1477)	C11 to J1	Ā
32	12-condr., 2-ft.6-in. (Z1/5995-99-949-2969)	J1 to 'E' box when fitted	E
35	12-pt., 7-in. (ZA46824)	C11 to PSU	I
36	12-condr., 3-ft. (Z1/5995-99-949-1478)	R210 to PSU	1
40	4-condr., 3-ft. (Z1/5995-99-949-3037)	PSU to LT box	I
41	Twin, 3-ft. (ZA54389)	If box to J1	¥
43	Copper braid (part of table)	Table to vehicle body	٧
64	Single, 2-ft.6-in. (Z1/5995-99-949-1068) (ZA 0781)	Battery series connector (Not used on Rover 8 and 9)	м
66	Single, 3-ft. (Z1/5995-99-949-1000) (ZA47089)	Battery negative to vehicle chassis. (Not used on Rover 8 and 9).	M
68	4/2-pt., 5-ft. (ZA 51401)	LT box to batten terminal in Rover 8 and 9 and in 1-ton Armoured	M
69	4/2-pt., 6-ft. (ZA51321) (alternative to Connector No.68)	Battery to LT box on set in \(\frac{1}{4}\)-ton Austin and trucks without power take-off	I

NOTE - Column 4 shows the kits in which connectors are supplied:
E - E'box kit, I - Installation kit (see page 2), M - multi-purpose kit,
V - wehicle fitting kit.

#### Section 9 FILTER UNIT RF No. 15

This filter unit reduces interference between C42 and R210 when these two sets are installed in the same vehicle. On installations in which it is required, mount it on the slotted steel angle framework and connect it between C11 and ATU No. 7 as in fig. 5. Filter unit RF No. 15 does not require any adjustment in use.

The filter unit is contained in a case similar to the LT box. It is supplied in a separate kit, together with two coaxial cables.

