

# **Mobile** Communications



DELTA/RANGR WALL MOUNT STATION



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## **SYSTEM SPECIFICATIONS\***

FREQUENCY RANGE (Refer to DELTA or RANGR Mobile Radio Unit)

INPUT VOLTAGE 90-130 VAC @ 50-65 Hz

180-260 VAC @ 50-65 Hz

(Standby Battery 13.8 VDC Nominal)

INPUT POWER

Standby 60 Watts Receive 100 Watts

Transmit 500 Watts (maximum)

POWER OUTPUT RATINGS (Refer to DELTA or RANGR Mobile Radio Unit)

DUTY CYCLE (EIA)

Receiver 100%, Transmitter 20%

TEMPERATURE RANGE

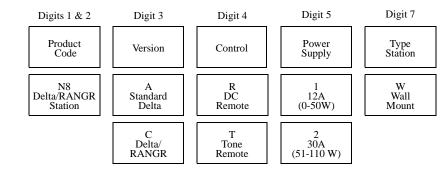
-30°C to +60°C (-22°F to +140°F)
(Performance specified per EIA)

SPEAKER 4 ohms

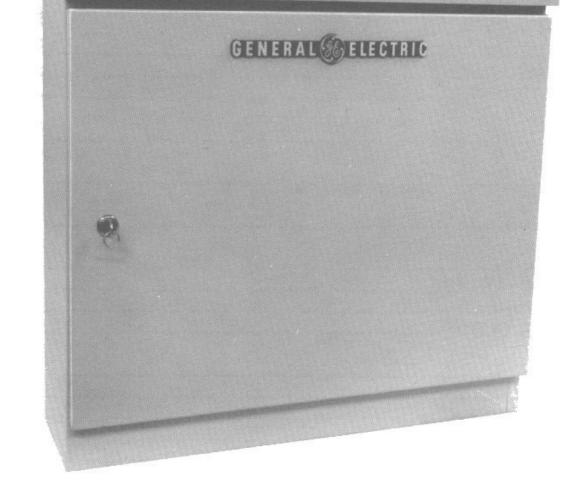
DIMENSIONS (HXWXD) 54 x 57.2 x 17.5 cm (21 1/4 x 22 1/2 x 6 7/8" in.)

WEIGHT 20 KG (44 LBS)

## **COMBINATION NOMENCLATURE**



<sup>\*</sup>For detailed transmitter and receiver specifications refer to the appropriate mobile Maintenance Manual.



WALL MOUNT STATION

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LBI-31453

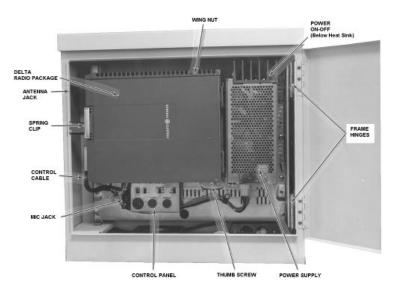


Figure 1 - Station Layout, DELTA Radio Shown

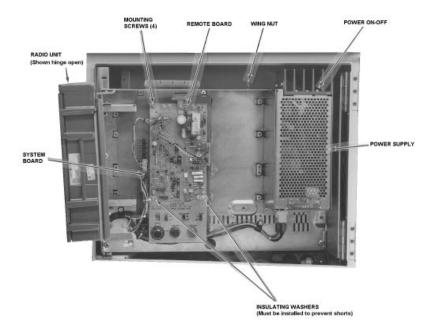


Figure 2 - Module Identification

## **DESCRIPTION**

The Wall Mount Station Combination utilizes state-of-the-art microcomputer technology for high value and reliability. The most advanced manufacturing techniques are used to provide the highest quality radio possible.

The Wall Mount Station provides two frequency transmit and two frequency receive service with up to four channels available for local station operation. An intercom system is also included to provide communication with the local controller.

The station is available in all frequency bands and power levels available in the DELTA and RANGR Mobile Radio Units. It will operate from 120 or 240 VAC sources @ 50/60 Hz. Input power variations of  $\pm 20\%$  are tolerated.

#### MECHANICAL PACKAGE

The station is housed in a slim lined and compactly built cabinet, occupying a minimum of space. It consists of a DELTA or RANGR radio, Remote board, System board and Power Supply. The System board includes the station control panel which contains all operating controls and indicators, except the power on-off switch. The power on-off switch (circuit breaker) is located on the Power Supply. Figures 1 and 2 identify the various station components. A System Interconnect cable connects the System board, Remote board and Power Supply with the radio.

The station radio combination may be equipped with:

- RF Channel Synthesizer
- Microcomputer Control System
- Two Channel Tx/Rx
- $\pm 0.0002\%$  or  $\pm 0.0005\%$  stability
- UHS Preamp
- Tone or Digital Channel Guard
- DELTA Microphone

# RADIO PACKAGE (DELTA)

The basic DELTA radio package consists of two printed wire boards mounted in a cast aluminum frame - the T/R/S board (transmit/receiver/synthesizer) and Power Amplifier board.

The radio is of single layer construction with all major modules and tuning adjustments easily accessible from the top of the radio. Centralized metering jacks for the transmitter, receiver, and system functions are provided for simplified alignment and troubleshooting. Refer to the radio Maintenance Manual for more detailed information.

# **RADIO PACKAGE (RANGR)**

The basic radio consists of five printed wiring boards mounted in a cast aluminum frame. The five boards are the System Control Board, Synthesizer Board, Receiver Board, Exciter Board and Power Amplifier Board.

The radio is of single-layer construction with all major modules and tuning adjustments easily accessible.

Centralized metering jacks for the transmitter, receiver and system functions are provided for simplified alignment and troubleshooting.

Refer to the Maintenance Manual for the radio for more detailed information.

#### DC AND TONE REMOTE

The DC and Tone remote boards provide the electrical interface between the Local Controller and the base station. They generate the different currents or tones required to select the remotely controlled functions. Refer to the Maintenance Manual for the individual remote board for detailed information.

#### **VOICE GUARD**

VG-9600 series Voice Guard modules are used in digital speech encryption/decryption with Delta Station combinations. Refer to the appropriate Maintenance Manuals for detailed information.

#### POWER SUPPLY

The Power Supply is a self-contained module which provides a single output of 13.8 VDC. Two versions of the power supply are available; one for low power applications and one for high power applications. Refer to the Power Supply Maintenance Manual for detailed information.

#### CONTROL PANEL

Except for the power ON-OFF switch all operating controls are located on the station control panel on the System board. The power ON-OFF switch is located on the power supply. A seven segment display on the control panel indicates the active channel. The control panel also contains the LOCAL/RMT, MON (monitor) ON-OFF, INTERCOM ON-OFF, and SPKR ON-OFF switches. A squelch and volume control are provided.

LBI-31453

LOCAL/RMT iceman to communicate or to monitor one of four operating channels.

MON ON-OFF - Allows monitoring of selected

channel.

INTERCOM ON-OFF - Provides intercom capability be-

tween the station and remote controller when turned on.Disabled

when turned off.

SPKR ON-OFF - Connects the speaker to the receiver

audio from the radio.

VOLUME - Adjusts the audio level.

SQUELCH - Adjusts the squelch threshold level.

## **PROGRAMMING**

The DELTA/RANGR Wall Mount Station is programmed using the Ericsson GE Universal Radio Programmer TQ2310. The same programming instructions used to program the radio are used again to program the station.

#### - NOTE

When programming the station jumper P8 must be moved from J8-2 & 3 to J8-1 & 2 for serial programming of the radio through J4. After programming the radio reconnect P8 to J8-2 & 3. The programmer plugs into J4 on the System board.

# **BATTERY STANDBY OPTION**

A battery standby option is available to permit continued station operation in the event of an AC power failure. The option provides internal switching in the station to a customer-supplied13.8-Volt battery supply.

#### - NOTE -

The battery standby option does not charge the standby batteries.

#### CIRCUIT DESCRIPTION

The standby battery option consists of a circuit board mounted on the station chassis, and one black cable and a red fused cable that connects from the battery to the battery standby jack at the back of the radio (see Figure 2). The output of the battery standby board connects to J1-2 (GND) and J1-8 (13.8 Volts) on the power supply.

When the station is powered by an AC voltage, diode D1 on the battery standby board is reverse biased so that the battery standby circuit is disabled, and the standby battery voltage is not applied to the station.

If the AC power fails, diode D1 is forward biased, and the battery voltage is applied to the power supply and then to the station and radio.

When AC power is again applied to the station diode D1 is reverse biased.

## **OPERATION**

All operating controls, except for the power OFF-ON switches, are located on the control panel. The power ON-OFF switch is located on the power supply.

#### - NOTE

Before leaving the station be sure all switches are off and LOCAL/RMT switch is in RMT position.

## MONITORING A CHANNEL

- 1. Set the power ON-OFF switch on the power supply to ON.
- 2. Set the SPKR switch to ON.
- 3. Set the MON switch to ON.
- 4. Set LOCAL/RMT switch to desired channel. Selected channel is indicated on 7 segment display.
- 5. Adjust VOLUME control for a comfortable listening level.
- Set SPKR and MON switches to OFF. Set LOCAL/RMT switch to RMT.

#### INTERCOM TO LOCAL CONTROLLER

- 1. Set the power ON-OFF switch on the power supply to ON.
- 2. Plug microphone into mic jack J1 located just left of the control panel.
- 3. Set SPKR switch to ON.
- 4. Set INTERCOM switch to ON.
- 5. When receiving, set VOLUME control for comfortable listening level. Set SPKR and INTERCOM switches to OFF.
- When communications have been completed return all switches to the OFF position and the LOCAL/RMT switch to RMT

#### RADIO COMMUNICATIONS

#### NOTE

Plug P9 on the system board must be removed for multi-channel remote operation.

# To Receive A Message

- 1. Set the power ON-OFF switch on the power supply to ON.
- The microphone will key the transmitter on the channel indicated. If more than one frequency is available, select the desired frequency with the LOCAL/RMT switch.
- 3. Set the SPK switch to ON.
- 4. Set the MONITOR switch to ON and adjust the volume control for a comfortable listening level.
- 5. The station is now ready to receive messages from other radios in the system. When the first call is received, it may be necessay to adjust the VOLUME control for the desired listening level.

# **To Transmit A Message**

- 1. If more than one channel is available, select the proper channel with the LOCAL/RMT switch.
- Monitor the channel to make sure no one else is using the channel.
- 3. Press the TRANSMIT switch on the microphone. Then speak into the microphone using a normal speaking voice. Always release the TRANSMIT switch as soon as the message is completed, and listen for an answer to the call.

#### **MAINTENANCE**

#### PREVENTIVE MAINTENANCE

To ensure high operating efficiency and to prevent mechanical and electrical failures from interrupting system operations, routine checks should be made of all mechanical and electrical parts at regular intervals. This preventive maintenance should include the checks as listed in the table of Maintenance Checks that follows.

#### ASSEMBLY AND DISASSEMBLY

Easy access to the station is inherent to its design. Simply unlock the door and swing it open. The station and radio package are hinged so that they can also swing out for servicing.

A spring clip next to the radio handle releases the entire station and allows it to swing out.

Loosening a captive thumb screw and a wing nut allows the radio package to hinge open, providing access to the Remote board.

To gain access to the rear of the station:

1. Press the spring clip next to the handle of the radio package. This will allow the station chassis to swing out and expose the rear of the station and the speaker.

To gain access to the Remote board and System board you must first release the radio and swing it away from the chassis.

 Loosen the thumbscrew and wing nut securing the radio to the station chassis and swing the radio out and away from the chassis.

#### REMOTE BOARD

To remove the Remote board remove the POZIDRIVOR® screw in the four corners of the board and remove the board. Unplug cabling as necessary. This now permits access to the System board.

#### SYSTEM BOARD

To remove the System board, remove the four screws securing it to the chassis and disconnect all cabling. Remove also the two screws securing the control panel.

#### - NOTE -

There are two insulating washers located between the control panel and Remote board. Be sure these are installed when replacing the control panel.

# OPTION INSTALLATION INSTRUCTIONS

## **RECEIVE AUDIO**

An audio plug must be installed on the T/P/S board in the DELTA radio (option AP04) or on the System Control Board in the RANGR radio to complete the receive audio path for the station. If these jumpers are not correctly installed, no receive audio will be heard from the station.

DELTA Radio: Install jumper P610/ J610 on the T/R/S

board in the radio.

RANGR Radio: Verify that P708 is connected across

pins 2 and 3 on the System Control

Board.

#### **MAINTENANCE**

	INTERVAL BETWEEN CHECKS	
	Every 6 months	As Required
Transmitter Alignment - Compare meter readings with voltages read during initial tune up. Check power output. (See Alignment Procedure for Transmitter.)		Х
Receiver - Retune the front end and check meter readings taken during initial tune up. (SeeAlignment Procedure for Receiver.)		X
Transmission Line - Check for positive indication of pressure on transmission line pressure gauge (if pressurized line is used).	X	
Antenna - Check antenna and mast for mechanical stability.	X	
Mechanical Inspection - Visually check cables, plugs, sockets, terminal boards and components for good electrical connections. Check for tightness of nuts, bolts, and screws to make sure that nothing is working loose from its mounting.	X	
Cleaning - Use a vacuum cleaner to remove dust which has accumulated inside the cabinet.	X	
Frequency Check - Check transmitter frequency and deviation as required.		X

#### **BATTERY STANDBY OPTION**

An external battery may be used to power the station in the event of AC power failure. The battery and charger must be supplied by the customer. The standby option consists of Option Kit 19D438326 and Hardware Kit 19B801212. Refer to the Battery Standby Option manual for installation.

#### - NOTE -

The battery standby option does not recharge the battery.

# INITIAL ADJUSTMENT AND CHECKOUT

After the station has been installed as described in the Installation Manual, the following adjustments should be made by an authorized electronics technician.

#### TEST EQUIPMENT REQUIRED

- 1. Deviation Monitor
- 2. Wattmeter, 50 ohms, 150 Watts
- 3. RF Generator, (Station RF Frequencies)
- 4. AC Voltmeter
- 5. 30 dB Decoupler

#### TRANSMITTER ADJUSTMENT

The adjustment for the transmitter includes measuring the forward and reflected power and adjusting the antenna length for optimum ratio, then setting the transmitter to rated power output. Next, measure and record the frequency and modulation for future reference. For the complete transmitter adjustment, refer to the Alignment Procedure in the applicable radio unit Maintenance Manual.

#### RECEIVER ADJUSTMENT

Initial adjustment for the receiver includes adjusting the audio output power for 2 watts across the speaker. Refer to the Maintenance Manual for the radio for Troubleshooting and Alignment Procedures, or Adjustments.

# STATION ADJUSTMENT PROCEDURES

#### **DC REMOTE BOARD (19A704686P3)**

Refer to the Maintenance Manual (LBI-31594) for the DC Remote Board for all adjustments.

#### **TONE REMOTE BOARD (19A704686P4, P6)**

Refer to Maintenance Manual (LBI-31552) for Tone Remote Board for all adjustments.

# **MULTI-FREQUENCY OPERATION**

Remove P9 from System board. Check remote control for multi-frequency operation. Replace P9 if single frequency desired.

#### SYSTEM BOARD

#### NOTE

To service the System board with the Remote board in the circuit, you will need to make an extension cable for P901 and P911. These cables should be long enough to allow you to lay the board aside while servicing.

# Tx Audio Mod Adjust

- 1. Set R40 to mid range. Apply a 100 millivolt, 1000 Hz signal across the MIC input terminals at J1-2 (Hi) and J1-1 (Low).
- 2. Connect deviation monitor to RF output jack on radio through a 30 dB decoupler.
- 3. Set R45 on System Board for 3 kHz deviation. Adjust R40 also, if necessary.

# INTERCOM & VOLUME CONTROL ADJUSTMENTS

#### SERVICE HINT -

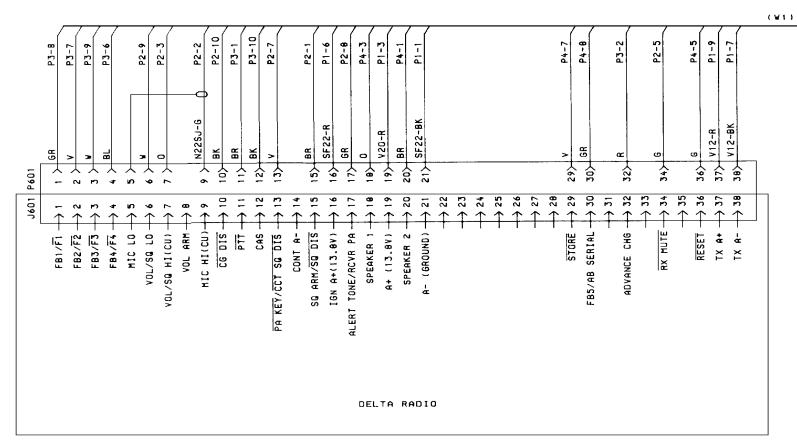
The INTERCOM switch disables the transmitter when in the OFF position.

- Connect dummy load (wattmeter) to antenna jack. Set Intercom switch to ON.
- 2. Connect a MASTR Controller or control test generator to the line terminals. Set the line output level to 0 dBm (0.78 rms).

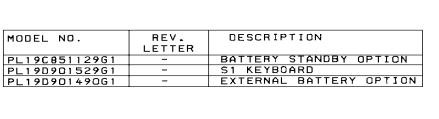
#### — NOTE -

With 6 mA line current the transmitter will key. (Intercom must be turned OFF.) Set the modulation control on the remote board for 3 kHz deviation with 1000 Hz modulation.

- 3. Apply an on frequency signal to the antenna jack with 1000 Hz modulation and 3 kHz deviation. Set line output on remote board to desired level. (Refer to the Maintenance Manual for the Remote board).
- 4. Apply 100 millivolts rms to mic jack J1-2 and Jl-1.
- Adjust R50 on System board for the same line output as Step 3.
- Set R33 in conjunction with the VOLUME control R59 for a comfortable listening level.



P601-21	P2-6	STANDBY P601-19	P601-16	P3-3	P601-38	STANDBY	76-1007
P1 SF22-BK	SF22-BK	V20-R P6	\$ <	SF22-R	V12-BK	B C TO BATT STANDBY	9 < VIZ-H
17	GROUND - 1	GROUND + C2	6ROUND + 4	NO CONNECTION 5	6ROUND - 4	13.84	13.84
			DWER 1986 1987	SUF	PLY		



EXTERNAL BATTERY OPTION PL190901490 SF22-BK

KIT PL198801212 ᇤ

7 ×

TO BATTERY

NOTES:

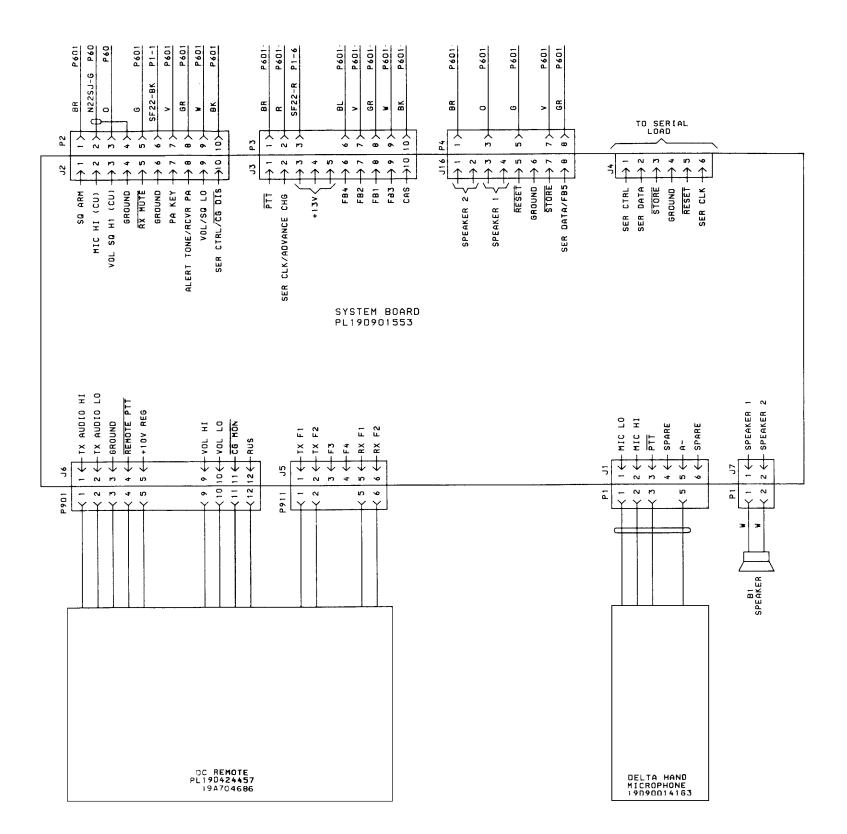
1. ALL WIRE IS SF24 UNLESS OTHERWISE SPECIFIED.

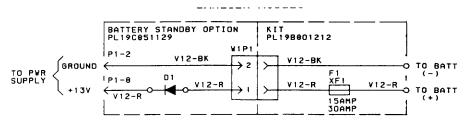
DESK TOP STATION AND WALL MOUNT STATION

WALL MOUNT STATION

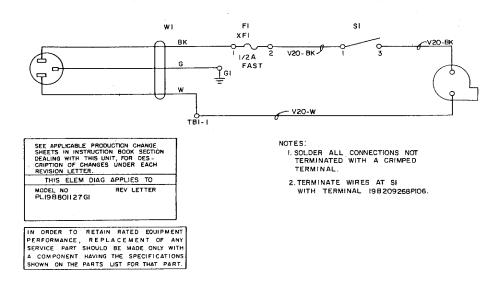
Issue 2

(19D901564, Sh. 1, Rev. 2)





# OPTION FA02 FAN ASSEMBLY-220 VAC WALL MOUNT



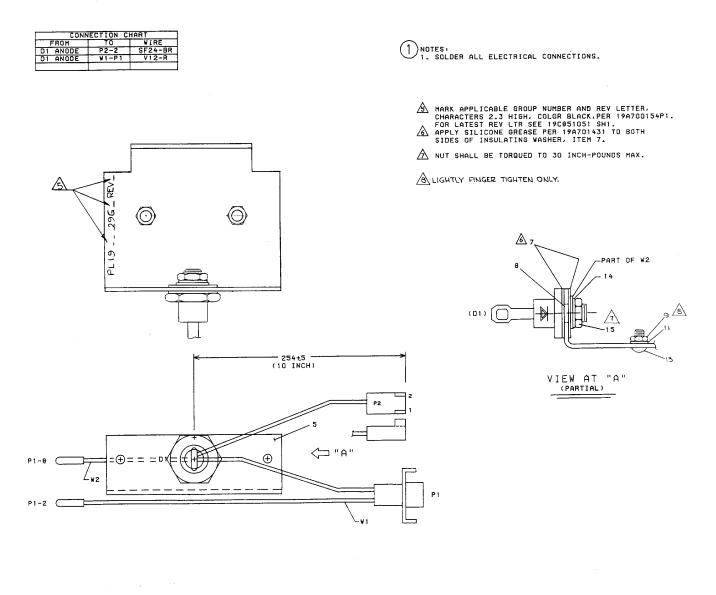
(19B801126)

# WALL MOUNT STATION

Issue 2

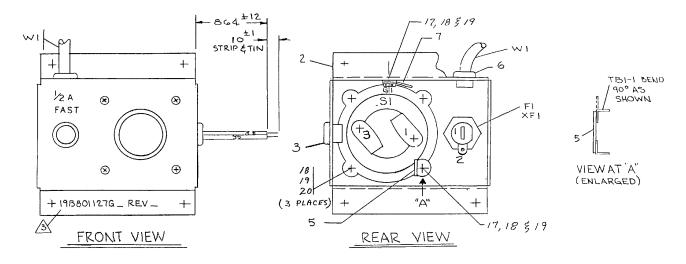
(19D901564, Sh. 3, Rev. 1)

# BATTERY STANDBY OPTION EARLIER MODELS



(19C851129, Sh. 1, Rev. 5)

#### FAN THERMOSTAT ASSEMBLY



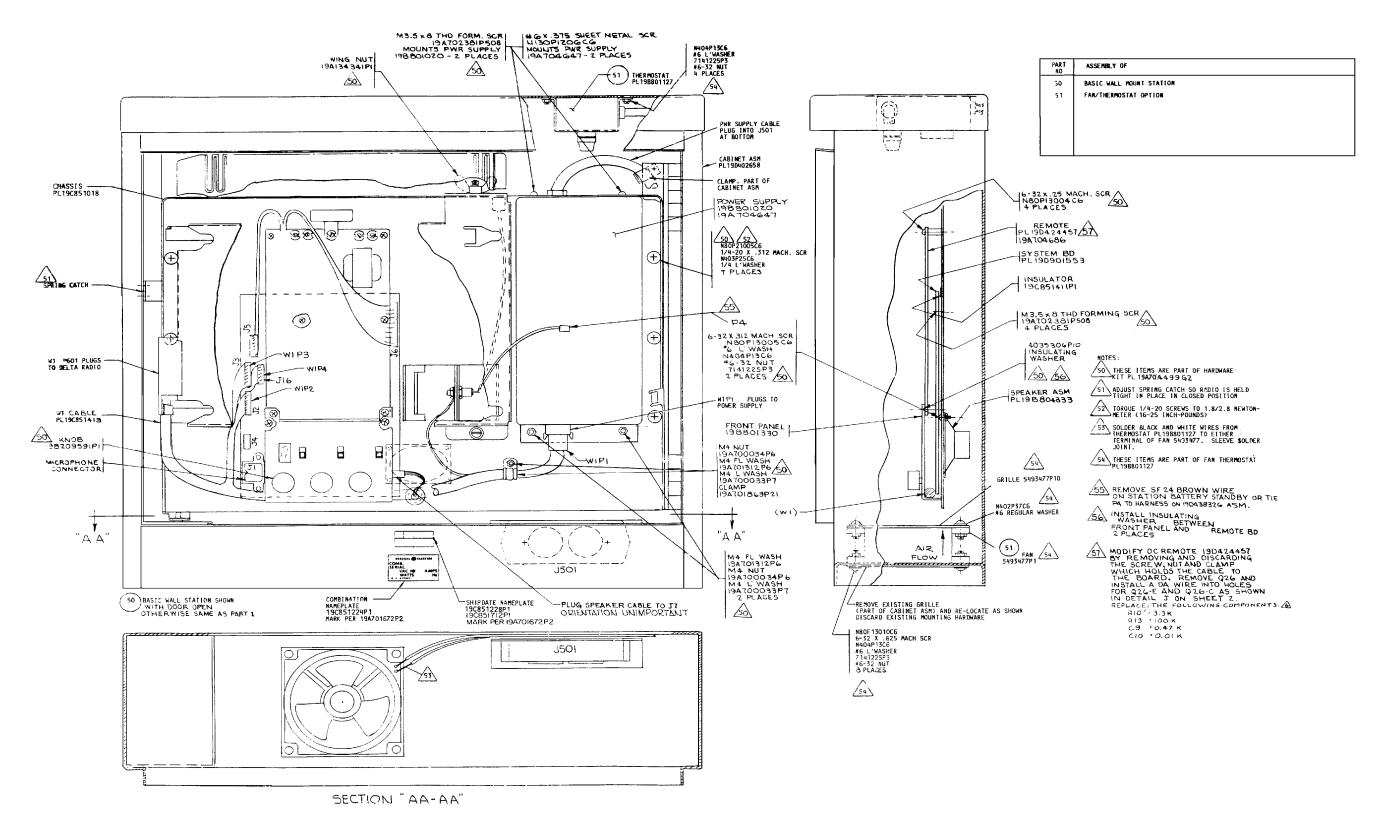
1) NOTES:

1. SOLDER ALL ELECTRIAL CONNECTIONS.

2. TERMINATE WIRES AT SI WITH ITEM 4

MARK AS SHOWN PLUS APPLICABLE GROUP NO. AND REV. LTR. CHARACTERS 2.3 HIGH, COLOR BLACK PER 19A700154 P1. FOR LATEST REV. LTR. SEE 19C851051.

(19B801127, Rev. 2)



(190901594, Sh. 3, Rev. 6)

## WALL MOUNT STATION

# DELTA-S, SX WALL MOUNT STATION (EARLIER MODELS

SYMBOL	PART NO.	DESCRIPTION
		DELTA WALL MOUNT STATION 19C851018G2
	19B800979G1	Radio Mounting Frame.
	5490407P10	Grommet, neoprene.
	N210P16B6	Nut, steel: No. 10-32.
	N80P16008B6	Machine screw, panhead: No. 10 - 32 x 1/2.
	19B801199P1	Nameplate
	N403P19B6	Lockwasher: No. 10.
	N402P39B6	Flatwasher: No. 10.
	19A115161P2	Sleeving.
	19D900886G2	Chassis
		DELTA WALL MOUNT STATION SPEAKER 19B801333G1
	19A703265P1	Permanent Magnet: 4 ohm imp., 4 watt.
	19A700041P28	Shell.
	19A700041P26	Contact: 22-30 AWG; sim to Molex 08-50-0113.
		WALL MOUNT FRONT PANEL 19B801330G1
	19B801329P1	Front Panel.
		WALL MOUNT STATION CABLE 19C851413G1
		PLUGS
P1		Connector includes:
	19A134281P3	Connector: 9 contacts, sim to CAT 1-480673-0.
	19A134282P4	Contact.
	19A134282P5	Contact, electrical: sim to AMP 61627-2.
P2 and P3	19A700041P26	Contact: 22-30 AWG; sim to Molex 08-50-0113.
	19A700041P36	Shell.
P4	19A700041P26	Contact: 22-30 AWG; sim to Molex 08-50-0113.
	19A700041P34	Shell.
P601	19A701376P1	Contact, electrical rated @ 4 amps; sim to AMP 350657-1.
	19A701376P3	Contact, electrical rated @ 35 amps; sim to AMP 350655-1.
	19D900037P1	Shell.
		MISCELLANEOUS
	19A703061P3	Clip
	19B800951G1	Cover Connector.
	19A701192P2	Thumbscrew.
	19A701289P1	Retaining ring: 3/16 inches; sim to National Lockwasher WA 510.
	19C851413G2	Cable
	19A702381P508	Screw, thread form: No. 3.5-0.6 x 8.
	19J706152P5	Retainer strap: sim to Panduit Corp. SST-1.
		ED OR CHANGED BY PRODUCTIION CHANGES

SYMBOL	PART NO.	DESCRIPTION
		ASSOCIATED PARTS
	19D438326G1	Optional Battery, (Option BU02).
	19C851129G1	Optional Battery, (Option BU02 - Includes Diode D1, EARLIER MODELS).
	19C851412G1	Cable, decode.
	19C851412G2	Cable, encode.
	19B801331G1	Speaker, wall mount.
	19A703639P1	Grille.
	2R22P2	Plug, coaxial: right angle, sim to Amphenol 83-1AP.
	19B800716P2	Tuning Tool.
	19B800004P3	Key.
	19B801213P1	Heat sink. (Used with Option BU02).
	19A702184P1	Nameplate.
	19A702609P1	Nameplate.
		15/30 AMP CABLE 19B801212G1
		FUSES
F1	7102673P2	Cartridge, quick blow: 15 amps at 32 v; sim to Littelfuse 311015 or Bussmann AGC-15.
F1	19A115857P2	Cartridge, quick blow, 30 amp at 125 v; sim to Bussmann AGC 30.
		PLUGS
P1		Connector includes:
	19A134281P1	Shell.
	19A134282P2	Contact, electrical. (Quantity 2).
		FUSE SOCKETS
XF1		Fuseholder includes:
	19A703780P4	Fuseholder spring.
	19A703780P2	Fuseholder.
	19A703780P3 19A703780P1	Fuseholder contacts.
	19A703780P1	Fuseholder knob.
		DELTA DESKTOP STATION BATTERY POWERED SUPPLY UNIT 19D901490G1
		FUSES
F1	19A704351P1	Circuit Breaker
		JACKS
J1		Connector includes:
	19A134281P2	Shell.
10	19A134282P4	Contact.
J2	10012428484	Connector includes:
	19A134281P4	Connector: 9 contacts, sim to CAT 1-480672-0.  Contact.
	19A134282P2	Contact.
		MISCELLANEOUS
	19C851389G1	Support.
5	19B209268P6	Variable, carbon film: 1K ohms + or -20%, 350 VDCW; sim to CTS Type 200.
	1	

SYMBOL	PART NO.	DESCRIPTION
		TELEPHONE LINE SURGE PROTECTOR KIT (OPTIONAL) 19A129368G2
		TERMINALS
E1 and E2	19A134356P1	Protector, telephone, gas filled; sim to Joslyn 2022-24.
		THERMOSTATIC FAN (OPTIONAL) 19B801127G1
		FUSES
F1	19A701881P18	Fuse, Slow blow, 0.5 Ampere 250V.
		SWITCHES
S1	5496655P1	Thermostat, snap-action: SPST, close on temp rise, auto reset, close at 110F $\pm 5^{\circ}$ , open at 95° $\pm 5^{\circ}$ , 25 amp at 120/240 VAC; sim to Metals and Controls 20400-F17-64-F110-1.5.
		CABLES
W1	19A134567P1	Power, 3 wire, 13 amps at 125 VAC, approx. 6 ft. long.
		FUSE SOCKETS
XF1	19B209005P1	Fuseholder: 15 amps at 250 v; sim to Littelfuse 342012.
		MISCELLANEOUS
	19B801129G1	Support.
	19A702464P2	Strain relief.
	19B209268P106	Terminal, solderless: sim to AMP 41184. (Used with S1).
	7775500P46	Phenolic: 1 insulated, 1 ground terminal.
	19A702464P4	Bushing, strain relief. (Used with W1).
	7491823P3	Solderless terminal.
	1 ,	

SYMBOL	PART NO.	DESCRIPTION
		MICROPHONE KIT 7141414 G1
	7142159P1	Support.
	7142159F1 7142156P1	Spring.
	7013672P3	Grommet, metallic.
	N193P1408B6	Tap screw.
	N 193F 1400B0	Tap screw.
		MICROPHONE 19D900141G3
	19B800741P1	Microphone, transistorized, electret: 5% max distortion at 300-3000 Hz. Includes Kits MP104-MP106.
	19D416767P1	Connector Cover.
	19D416766P1	Connector base.
	19A129435G1	Pin contact.
	19B219723G1	Thumb screw: lexan.
	19B219749P1	Flex relief.
	N136AP905Y6	Tap screw: No. 4-24 x 5/16.
	19A701289P1	Retaining ring: 3/16 inches; sim to National Lockwasher WA 510.
	19A116937P1	Cable clamp: sim to Malco 21012-3.
		CARTRIDGES
	19J706041P1	Microphone cartridge: 200-850 ohms output imp.,1.5 - 10 Vdc; sim to Primo EM-60.
	19C851086P11	Microphone, transistorized, electret.

<sup>\*</sup>COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES

DELTA/RANGR WALL MOUNT	STATION
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SYMBOL	PART NO.	GR WALL MOUNT STATION  DESCRIPTION
O I WIDOL	TAKT NO.	DEGGRI HON
		DELTA RANGR WALL MOUNT STATION 19C851018G4
	5490407P10	Grommet, neoprene.
	N210P16B6	Nut, steel: No. 10-32.
	N80P16008B6	Machine screw, panhead: No. 10 - 32 x 1/2.
	19B801199P1	Nameplate
	N403P19B6	Lockwasher: No. 10. Flatwasher: No. 10.
	N402P39B6 19A115161P2	
	19B800979G2	Sleeving. Radio Mounting Frame.
	19B801422P1	Latch.
	N210P15B6	Nut, hex: No. 8-32.
	N402P38C6	Flatwasher: No. 8.
	N403P16B6	Lockwasher, internal tooth: No. 8.
	19D900886G4	Chassis
		WALL MOUNT OTATION OR AVER
		WALL MOUNT STATION SPEAKER
	19A703265P1 19A700041P28	Permanent Magnet: 4 ohm imp., 4 watt. Shell.
	19A700041P26	Contact: 22-30 AWG; sim to Molex 08-50-0113.
		WALL MOUNT FRONT PANEL 19B801330G1
	19B801329P1	Panel, Frame.
		15/30 AMP CABLE
		WALL MOUNT STATION CABLE 19C851413G5
		PLUGS
P1	10110100100	Connector includes:
	19A134281P3	Connector: 9 contacts, sim to CAT 1-480673-0.
	19A134282P4 19A134282P5	Contact. Contact, electrical: sim to AMP 61627-2.
P2	19A700041P26	Contact: 22-30 AWG; sim to Molex 08-50-0113.
and P3	13/1/000411 20	Sofitable 22 30 7470, Silli to Iviolex 00 30 01 10.
	19A700041P36	Shell.
P4	19A700041P26	Contact: 22-30 AWG; sim to Molex 08-50-0113.
	19A700041P34	Shell.
P601	19A701376P1	Contact, electrical rated @ 4 amps; sim to AMP 350657-1.
	19A701376P3	Contact, electrical rated @ 35 amps; sim to AMP 350655-1.
	19D900037P1	Shell.
		MISCELLANEOUS
	19A703061P3	Clip.
	19A701289P1	Retaining ring: 3/16 inches; sim to National Lockwasher WA 510.
	19A702381P508	Screw, thread form: No. 3.5-0.6 x 8.
	19J706152P5	Retainer strap: sim to Panduit Corp. SST-1.
	19C850978P2	Connector Cover.
	19A701192P4	Thumbscrew.
	19C851413G7	Cable

	PART NO.	DESCRIPTION
		ASSOCIATED PARTS
	19D438326G1	Optional Battery, (Option BU02).
	19C851129G1	
	13000112301	Optional Battery, (Option BU02 - Includes Diode D1, EARLIER MODELS).
	19B801331G1	Battery, 9 Volt, Backup
	19B801331G1	Speaker, wall mount.
	19A703639P1	Grille.
	19B800716P2	Tuning Tool.
	19B800004P3	Key.
	19B801213P1	Heat sink. (Used with Option BU02).
		15/30 AMP CABLE 19B801212G1
		FUSES
F1	7102673P2	Cartridge, quick blow: 15 amps at 32 v; sim to Littelfuse 311015 or Bussmann AGC-15.
F1	19A115857P2	Cartridge, quick blow, 30 amp at 125 v; sim to Bussmann AGC 30.
		PLUGS
		Connector includes:
P1	19A134281P1	Shell.
	19A134282P2	Contact, electrical. (Quantity 2).
		FUSE SOCKETS
XF1		Fuseholder includes:
	19A703780P4	Fuseholder spring.
	19A703780P2	Fuseholder.
	19A703780P3	Fuseholder contacts.
	19A703780P1	Fuseholder knob.
		DELTA DESKTOP STATION BATTERY POWERED SUPPLY UNIT 19D901490G1
		FUSES
F1	19A704351P1	Circuit Breaker
гі	19A704351F1	Circuit Breaker
		JACKS
J1		Connector includes:
	19A134281P2	Shell.
	19A134282P4	Contact.
J2		Connector includes:
	19A134281P4	Connector: 9 contacts, sim to CAT 1-480672-0.
	19A134282P2	Contact.
		MISCELLANEOUS
	19C851389G1	Support.
	19B209268P6	Variable, carbon film: 1K ohms + or -20%, 350 VDCW; sim to CTS Type 200.
		TELEPHONE LINE SURGE PROTECTOR KI (OPTIONAL) 19A129368G2
		TERMINALS
E1 and	19A134356P1	Protector, telephone, gas filled; sim to Joslyn 2022-24.

SYMBOL	PART NO.	DESCRIPTION
		THERMOSTATIC FAN (OPTIONAL) 19B801127G1
		FUSES
F1	19A701881P18	Fuse, Slow blow, 0.5 Ampere 250V.
		SWITCHES
S1	5496655P1	Thermostat, snap-action: SPST, close on temp rise, auto reset, close at 110° $\pm$ 5°, open at 95° $\pm$ 5° 25 amp at 120/240 VAC; sim to Metals and Controls 20400-F17-64-F110-1.5.
		CABLES
W1	19A134567P1	Power, 3 wire, 13 amps at 125 VAC, approx. 6 ft. long.
		FUSE SOCKETS
XF1	19B209005P1	Fuseholder: 15 amps at 250 v; sim to Littelfuse 342012.
		MISCELLANEOUS
	19B801129G1	Support.
	19A702464P2	Strain relief.
	19B209268P106	Terminal, solderless: sim to AMP 41184. (Used with S1).
	7775500P46	Phenolic: 1 insulated, 1 ground terminal.
	19A702464P4	Bushing, strain relief. (Used with W1).
	7491823P3	Solderless terminal.

SYMBOL	PART NO.	DESCRIPTION
		MICROPHONE KIT 7141414G1
	7142159P1 7142156P1 7013672P3 N193P1408B6	Support. Spring. Grommet, metallic. Tap screw.
		MICROPHONE 19D900141G3
	19B800741P1	Microphone, transistorized, electret: 5% max distortion at 300-3000 Hz. Includes Kits MP104-MP106.
	19D416767P1	Connector Cover.
	19D416766P1	Connector base.
	19A129435G1	Pin contact.
	19B219723G1	Thumb screw: lexan.
	19B219749P1	Flex relief.
	N136AP905Y6	Tap screw: No. 4-24 x 5/16.
	19A701289P1	Retaining ring: 3/16 inches; sim to National Lockwasher WA 510.
	19A116937P1	Cable clamp: sim to Malco 21012-3.
		CARTRIDGES
	19J706041P1	Microphone cartridge: 200-850 ohms output imp.,1.5 - 10 Vdc; sim to Primo EM-60.
	19C851086P11	Microphone, transistorized, electret.

<sup>\*</sup>COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES

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