DESCRIPTION AND MAINTENANCE MASTR® II BASE STATION COMBINATIONS

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Com-Net Ericsson Critical Radio Systems, Inc. P.O. Box 2000 Lynchburg, Virginia 24501 1-800-528-7711 (Outside USA, 804-592-7711)

Printed in U.S.A.

WARNING

No one should be permitted to handle any portion of the equipment that is supplied with high voltage; or to connect any external apparatus to the units while the units are supplied with power. KEEP AWAY FROM LIVE CIRCUITS.

High level RF energy in the transmitter Power Amplifier assembly can cause RF burns KEEP AWAY FROM THESE CIRCUITS WHEN THE TRANSMITTER IS KEYED.

SPECIFICATIONS*

EIA DIMENSIONS (H X W X D)

DESK MATE (30-INCH) DESK MATE (44-INCH)

POLE MOUNT FLOOR MOUNT

WEIGHT

DESK MATE (30-INCH) DESK MATE (44-INCH) POLE MOUNT FLOOR MOUNT

44-1/4" X 21-1/2" X 15.5" 45" X 21-1/2" X 21" 69" X 23" X 21"

30-1/4" X 21-1/2" X 15.5"

160 lbs 180 lbs 225 lbs 290 lbs

INPUT VOLTAGE

121/242 VAC, 60 Hz Only (50 Hz Optional)

AC INPUT POWER

RF OUTPUT POWER	TRANSMIT	RECEIVE	STANDBY
LOW BAND 100 WATTS	260 WATTS	105 WATTS	65 WATTS
HIGH BAND 40 WATTS 110 WATTS	270 WATTS 560 WATTS	75 WATTS 105 WATTS	40 WATTS 65 WATTS
UHF 40 WATTS 100 WATTS	270 WATTS 560 WATTS	75 WATTS 105 WATTS	40 WATTS 65 WATTS

TEMPERATURE RANGE

 -30° TO + 60°C (-22 to + 140 F)

* These specifications are intended primarily for the use of the serviceman. Refer to the appropriate Specification Sheet for the complete specifications.

FCC FILING NUMBERS

	DERO		
MODEL SERIES	FCC FILING NO.	DUTY CYCLE	POWER OUTPUT
LOW BAND C74	KT-61-A	CONTINUOUS	50 - 100 WATTS
HIGH BAND	K1-01-A	CONTINUOUS	50 - 100 WATTS
C56	KT-47-J	CONTINUOUS	10 - 40 WATTS
C76	KT-49-J	CONTINUOUS	20 - 110 WATTS
UHF			
C55	KT-55-K	CONTINUOUS	1 - 40 WATTS
C75	KT-114-K	CONTINUOUS	30 - 100 WATTS

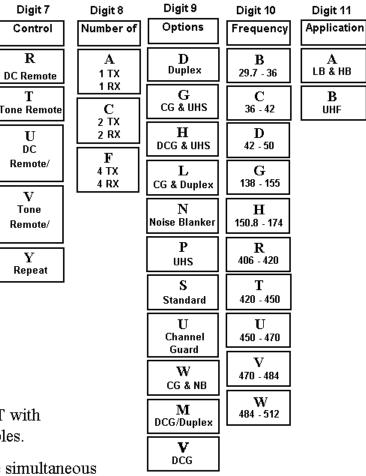
(o) /CABINET/STYLE (1st Digit "D", "S", "P", or "V")

NOTE: FCC Filing number not relevant to equipment operating in the 406 - 420 MHz frequency range.

COMBINATION NOMENCLATURE

Digits 1&2	Digit 3	Digits 4-6
Product	Cabinet	Power
S3 Mil Station	D 30 - inch	030 30 - watts
Station	Desk Mate	035 35 - watts T
	44 - inch Desk Mate	040 40 - watts
	P Pole Mount	080 80 - watts
	Cabinet V	100 100 - watts
	Floor Mount Cabinet	110 110 - watts

- D & L Combinations are PTT with • separate receiver antenna cables.
- • L Station Combinations have simultaneous Encode/Decode Channel Guard.



DESCRIPTION

The MASTR II radio station combinations are designed for either DC or Tone Remote Control or Repeater operation. The station receiver is mounted on a shielded enclosure on the radio panel front door, along with a receiver system board which accommodates Channel Guard and other option boards. Jacks are provided on the system board for plug-in interface with the options and control functions. The transmitter exciter is located in a separate shielded compartment on the radio panel front door. See Figure 1.

The continuous duty transmitter power amplifier hinges from the bottom of the radio housing. The PA assembly consists of a frame mounted to a heat sink. A cover snaps over the frame to form an RF-tight enclosure for the PA board assembly.

Directly above the PA assembly is the station control shelf. This shelf houses the Control Panel and the Mini Backplane option S3MB01. The option cards used with the Control Shelf are installed in the Mini-backplane housing. These options include: Auxiliary Control, Auxiliary Receiver (DC or Tone), and Scan functions. Refer to LBI-31877 for a complete description of Mini Backplane option S3MB01.

Two front panels are used: one for all station applications and one for repeater applications. A Front Panel is shown in Figure 2. Typical Front Panel controls include the transmit (TF1-TF4) and receive (RF1-RF4) frequency select, REM PTT, Speaker, Auxiliary receiver, ICOM (Intercom) and TEST switches, and the VOLUME Control. Indicators include the TX (transmit), RPTR Disable, and Frequency Select (F1-F4).

External control connections are made to TB1201 located on the back of the Control Shelf.

The station power supply is connected to a 121 VAC power source. Conversion from 121 VAC to 242 VAC is made by jumper changes on the back of the power supply front panel. The input voltage is stepped down to 12 Volts by a ferroresonant transformer which provides line regulation of 2% for a 20% primary change. A power switch, primary and secondary fuses and two AC outlets are located on the front panel. A high-current fuse is located on the back panel.

SYSTEM DESCRIPTION

RECEIVER

The station receiver consists of an oscillator/multiplier assembly (OSC/MULT), RF Assembly, Mixer/IF Assembly (MIF) and IF-Audio Squelch Assembly (IFAS). In receivers with noise blankers, the noise blanker circuit replaces the standard MIF board. Refer to the Receiver Maintenance Manual for a complete description of the station receiver.

TRANSMITTER

The station transmitter consists of an exciter board assembly and a power amplifier assembly. In continuous duty transmitters, the PA assembly consists of a printed wiring board mounted on a heat sink at the rear of the radio housing. In intermittent duty stations, the heat sink assembly is fastened to two sheet metal adaptor plates which hinge at the radio panel. Refer to the transmitter Maintenance Manual for a complete description of the station transmitters.

SYSTEM BOARD A1

The station System Board is located on the Radio Panel Front Door and the receiver modules plug directly into the board. Along the edge of the System Board are two connectors which interconnect with the Remote Control Shelf and Power-Supply. Plug-in Channel Guard and Carrier Control ~ Timer option jacks are provided. A metering jack is provided for accommodating the Com-Net Ericsson Model 4EX3A11 Test Set. VOLUME Control R3 is located on the System Board. SQUELCH Control R901 is located on the Radio Panel Front Door.

A jumper is normally present between J933-4 and J933-8 in single-frequency transmit stations. A jumper is also present between H47 and H48 on A901 in single-frequency receive stations. In multiple-frequency receive stations, selecting a particular receive frequency at the remote control unit applies a ground to the particular pin at J931 corresponding to the frequency selected. The ground is then connected via the System Board printed wiring to the receiver. OSC/MULT to select the desired oscillator.

VOLUME/SQUELCH from the receiver Audio PreAmp is connected via J904-12 to the VOLUME (R3) and SQUELCH (R901) controls. The VOLUME arm is returned to the receiver IFAS Board where the signal is amplified by the receiver audio power amplifier circuit. The audio output of the PA is then connected to the speaker leads at J904-18 & 19. The station VOLUME control (R3) is normally adjusted for 1-watt output and the station speaker level is controlled by the service speaker VOLUME control.

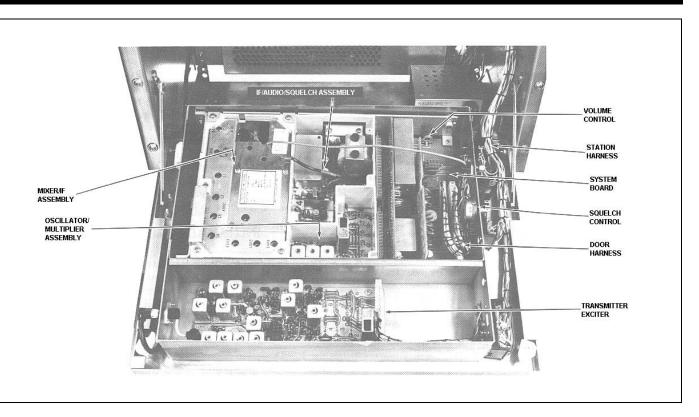
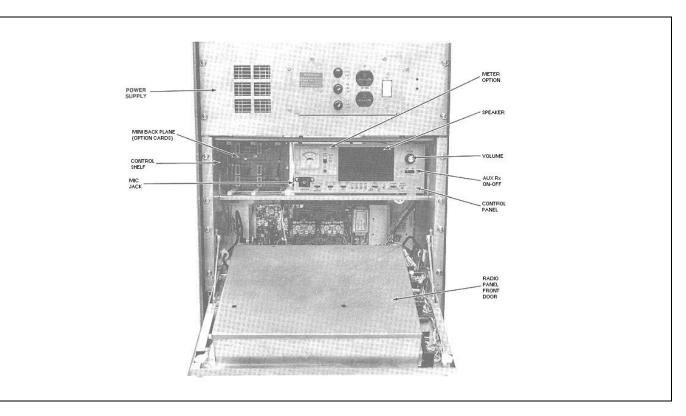


Figure 1 - Radio Panel Front Door



DC REMOTE CONTROL

In DC Remote Control Systems, DC currents are selectively applied to a telephone pair at a remote control console to set the system operating characteristics. Items that are controlled by the DC Remote Control system include selecting the number of channels, scan option, Channel Guard Disable, Repeater Disable, and Auxiliary Receiver. In some cases combinations of the above may be selected. Refer to the Control Panel Manual for details.

TONE REMOTE CONTROL

Up to 13 functions may be controlled in the Tone Remote Control system. This is accomplished by applying the specified tone frequency at the prescribed level to the transmission medium at a remote control console for detection by the Tone Remote Control system on the Control Shelf. The controlled functions include transmitter/receiver selection, Rx Channel Guard Disable, Channel Guard or Repeater Enable/Disable, Auxiliary function on/off, repeater enable, scan or sim. monitor or repeater disable, and Tx hold. Refer to the Maintenance Manual for the Control Shelf for a complete description of the system.

CHANNEL GUARD

In stations equipped with Channel Guard, the Channel Guard Board is plugged into the System Board at P908 and P909. Each MASTR II receiver is equipped with a tone reject filter to prevent the CG tone from being heard in the speaker. In addition, all transmitters are provided with a Channel Guard Modulation control which is adjusted for proper deviation.

Channel Guard is a continuous tone controlled squelch system that provides communications control in accordance with EIA standard RS-220. The system utilizes standard tone frequencies from 721.9 to 203.5 Hz with both the encoder and operating on the same frequency. The STE circuit (Squelch Tail Eliminator) employs a phase shift of approximately 180 degrees in the encode function to eliminate an undesirable noise burst after each transmission.

The decoder operates in conjunction with the receiver to inhibit all calls that are not tone coded with the proper Channel Guard tone frequency. The Volume/Squelch output of the receiver is applied to the Channel Guard decoder at P908-1. When the received signal is not properly coded with the CG tone, a ground is supplied through P908-5 to mute the receiver. When a properly coded signal is received, the receiver unsquelches and the desired signal is heard. In duplex combinations, a separate encoder is used in the exciter and a separate decoder is used in the receiver.

A Channel Guard Filter is used in the remote audio to attenuate frequencies below 203.5 Hertz to prevent the Channel Guard tone from being applied to the remote audio pair.

A repeater will not key in Channel Guard systems unless the received signal is coded with the proper Channel Guard tone. The CG MONITOR function when selected will not allow the repeater to key on an encoded signal but will allow the operator to hear all channel activity.

INITIAL ADJUSTMENT

After the MASTR II station has been installed as described in the Installation Manual, the following adjust-ments should be made by an authorized electronics technician before the station is placed in service.

TEST EQUIPMENT REQUIRED

- 1. Deviation Monitor
- 2. Wattmeter, 50 ohms, rated power
- 3. RF Generator, (Station RF Frequencies)
- 4. AC Voltmeter
- 5. 30 dB Coupler

TRANSMITTER ADJUSTMENT

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

RECEIVER ADJUSTMENT

Initial adjustment of the receiver includes tuning the input circuit to match the antenna, adjusting the station volume control, and setting the station squelch control. Refer to the Front End Alignment and Adjustment Procedures in the Maintenance Manual.

STATION VOLUME (R3 on System Board)

1. Apply a 1000 microvolt on-frequency test signal modulated by 1000 Hz with 3 kHz deviation to the receiver antenna jack J937.

- 2. Turn service speaker switch (S1) to desired RCVR position.
- 3. Connect an AC Voltmeter across J905 terminals 1 & 2 and adjust R3 for a reading of 6.3 Volts RMS on the meter.



Adjusting the VOLUME control for levels higher than specified may cause damage to the speaker.

4. Set VOLUME switch S2 on the service speaker to the desired listening level.

STATION SOUELCH (R901 on Receiver Exciter Door)

- 1. Turn the SQUELCH control clockwise as far as possible.
- 2. Turn the SQUELCH control counterclockwise until the noise just disappears, then advance the control (clockwise) another 20 degrees.

LOCAL CONTROL MODULATION **ADJUSTMENT**

- 1. Apply a 1000 Hz, 1 VRMS signal across P3-2 (MIC HI) and P3-1 (low). Connect a 0.5 microfarad (or larger) DC blocking capacitor in series with the MIC HI lead, P3-2.
- 2. Set MOD ADJUST control R127 on the exciter for 4.5 kHz deviation as indicated on a frequency modulation monitor.
- 3. While talking in a normal voice, at the station microphone adjust LOCAL TX MOD LEVEL R222 (Tone Panel) or R46 (DC Panel) on the Control Panel for a deviation of 3 to 4 kHz as measured on the deviation monitor.

REPEATER CONTROL ADJUSTMENT

- 1. Apply a 1000 Hz, on frequency signal modulated with 1000 Hz tone at 3 kHz deviation to the station receiver.
- 2. Adjust TX MOD control R60 on the Control Panel for a 3.0 kHz deviation as indicated on the deviation monitor.

REMOTE CONTROL ADJUSTMENTS

The transmitter modulation gain, the remote audio input and line output must be adjusted before placing the station in operation. Refer to the DC Remote Control or the Tone Remote Control Maintenance Manual for these adjustments.

REPEATER CONTROL ADJUSTMENT

The repeater drop out delay timing may be adjusted before placing the station in operation. Refer to the MASTR II Repeater Station Control Panel Maintenance Manual for these adjustments.

MAINTENANCE

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

TEST AND TROUBLESHOOTING PROCEDURES

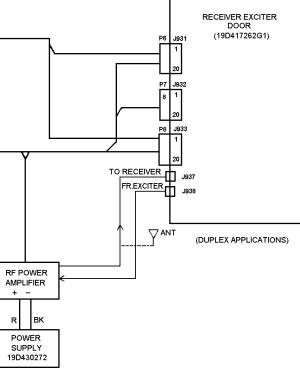
The individual Maintenance Manuals for the transmitter and receiver describe standard test procedures which the technician can use to compare the actual performance of the transmitter or receiver against the specifications of the unit when shipped from the factory. In addition, specific troubleshooting procedures are available to assist the technician when servicing the transmitter and receiver.

Removing IC "s and other soldered-in components can be easily accomplished by using a de-soldering tool. To remove an IC, heat each lead separately on the solder side and remove the old solder with the de-soldering tool.

An alternate method is to use a special soldering tip that heats all of the pins simultaneously.

SYSTEM INTERCONNECTION DIAGRAM

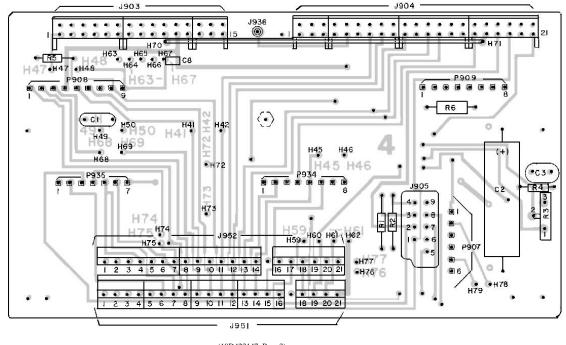
MAINTENANCE CHECKS		L BETWEEN ECKS
	Every 6	As Required
Transmitter Alignment: Compare meter readings at transmitter multiplier metering jacks with voltages read during initial tune up. Touch up multiplier tuning. Check power output. (See Alignment	months	X
Procedure for Transmitter). Receiver: While receiving an unmodulated signal on the station frequency(s), adjust OSC-1 trimmer for each operating frequency		X
a zero discriminator reading. (See the Receiver Alignment cedure). assession Line: Check for positive indication of pressure on smission line pressure gauge (if pressurized line is used).	X	
tenna: Check antenna & mast for mechanical stability.	X X	
terminal boards & components for good electrical connections. Check for tightness of nuts, bolts, & screws to make sure that nothing is working loose from its mounting.		
Cleaning: Use a vacuum cleaner to remove dust which may have accumulated inside the cabinet. Frequency Check: Check transmitter frequency & deviation.	X	X



RC - 5665

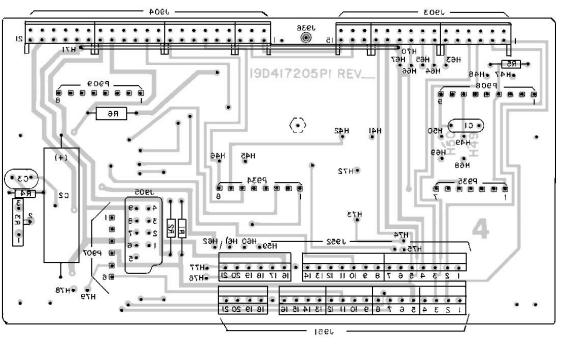
OUTLINE DIAGRAM

COMPONENT SIDE



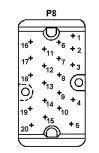
(19D423147, Rev. 3) (19D417205, Sh. 2, Rev. 4)

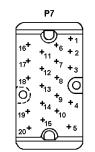
SOLDER SIDE



(19D423147, Rev. 2) (19D417205, Sh. 2. Rev. 4)







P6

+14 +10

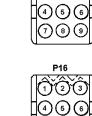
+15

17*

18**†**

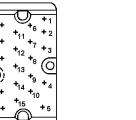
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19**+**



P17 ÛÔÔ

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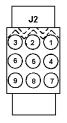


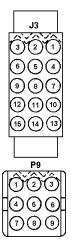
NOTE: 1. CONNECTORS SHOWN FROM WIRING SIDE.

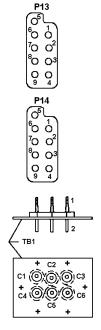


LBI-31899G



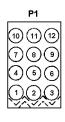


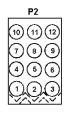




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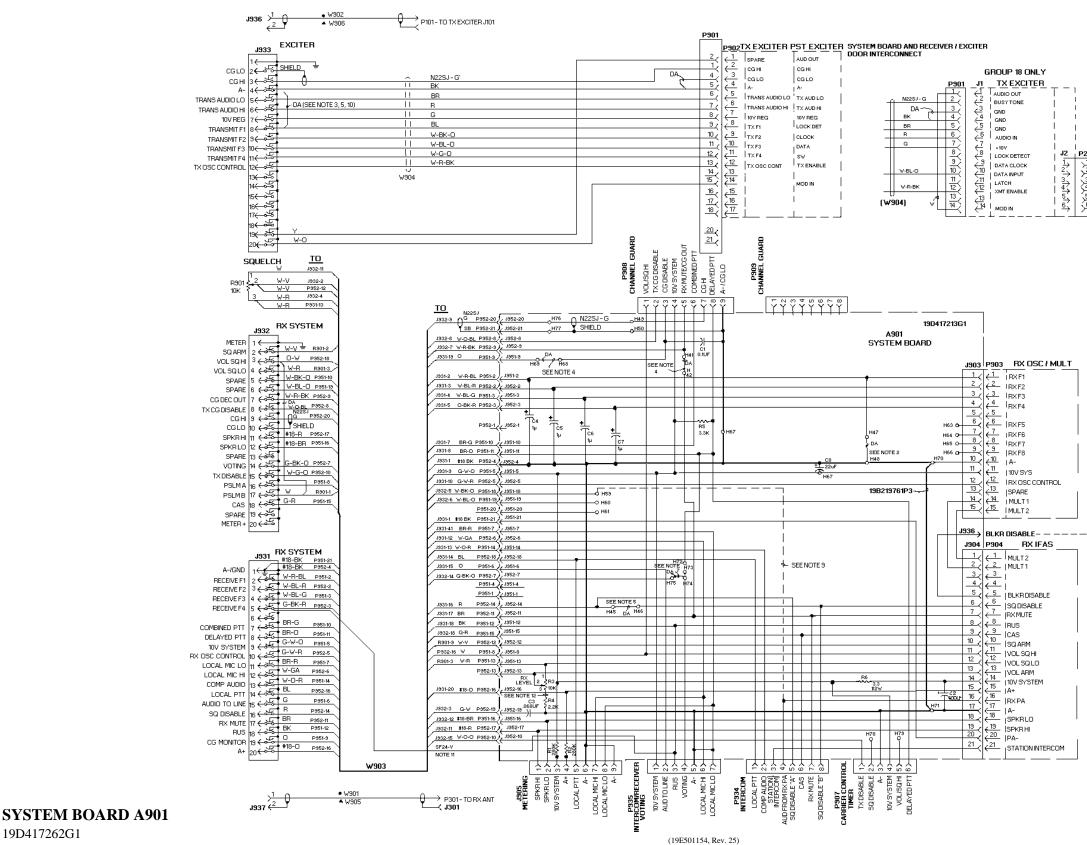


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(19C328112, Rev. 2)

WIRING HARNESS 19C320811



19D417262G1

	~	CABL 19A70	E)5784		
2		P1	J1	LOADER BD PL19D90220	
1/2/3/4/5/6		1 2 3 4 5 6	ᠴᢩᠰᡎᢩᢘᡎ	LATCH DATA CLOCK DATA INPUT LOCK DETECT I +10V GND	

NOTES:

- 1. ALL WIRE SF22 UNLESS NOTED.
- JUMPER FROM A301-H47 TO A301-H48 PRESENT IN SINGLE FREQUENCY RECEIVE STATIONS.
- 3. DA FROM J953 PIN 1 TO PIN 8 PRESENT IN SINGLE FREQ. TRANSMIT STATIONS.
- 4. JUMPER FROM A301-H41 TO A301-H42 AND A301-H63 TO A301-H68 PRESENT IN ALL STATIONS EXCEPT CHANNEL GUARD REPEATERS OR CHANNEL GUARD REMOTE/REPEAT STATIONS

IN VOICE GUARD STATION OPTIONS 3783 THRU NY TOLE GOARD STATION OF THOUS 3163 THRO 3765 (REMOTE ONLY E/D), H41-42 AND H68-H63 ARE BOTH PRESENT. IN OPTIONS 3765 THRU 3768 (E/D REMOTE/REPEAT), H41-H42 IS REMOVED H68-H63 IS PRESENT.

- JUMPER FROM A301-H45 TO A301-H46 NOT PRESENT WITH INTERCOM.
- CARRIER CONTROL TIMER MAY NOT BE USED IN C.G. REPEATER OR C.G. REMOTE/REPEAT STATIONS.

IN 2 WIRE DC CONTROL SYSTEMS WITH VOTING TONE BOARD. JUMPER FROM A301-H14 TO A301-H15 IS NOT PRESENT. JUMPER FROM A301-H12 TO A301-H15 IS PRESENT.

IN 4 WIRE STATIONS WITH VOTING TONE BOARD, JUMPERS H74-H75, H72-H73 ARE NOT PRESENT

8. ▲ 800 MHz ● LB, HB & 450 MHz

- IN VOICE GUARD STATION OPTIONS 6783 THRU 3788, ADD DA JUMPER FROM H53 TO P334-4.
- FOR PST APPLICATION REMOVE JUMPER FROM J933-1 TO J933-8, ADD Y WIRE FROM J933-19 TO P901-2 AND W-O WIRE FROM J933-20 TO P901-15.
- SF24-V WIRE ADDED AND RUN CUT FROM P335-3 WHEN MODIFIED FOR PST VOTING.
- 12. FOR MITE WITH INTERCOM: FOR MUTE WITH INTERCOM: A. REMOVE WIRE FROM 352-13 AND INSULATE B. REMOVE R4 C. ADD WIRE FROM 303-5 TO P334-8 D. ADD WIRE FROM 303-13 TO J352-13 E. ADD WIRE FROM 303-13 TO BA (HOLE CLOSEST TO RADIO HOUSING) F. ADD WIRE FROM P334-3 TO BA (HOLE FURTHERT FROM P330-10 HOLESING)

ALL RESISTORS ARE 114 WATT UNLESS OTHERVISE SPECIFIED AND RESISTOR YALUES IN OHMS UNLESS FOLLOWED BY K=1000 OHMS OF MEG=1,000,000 OHMS. CAPACITOR YALUES IN PICOFARADS (EGUAL TO MICROMICROFARADS) UNLESS FOLLOWED BY UF=MICROFARADS, INNUCTANCE YALUES UNLEWIL UNECRAFT ON LOWERNYC OF UNECROYED BY MH=MILLIHENRYS OR H=HENRYS

IN ORDER TO RETAIN RATED EQUIPMENT PERFORMANCE, REPLACEMENT OF ANY SERVICE PART SHOULD BE MADE ONLY WITH A COMPONENT HAVING THE SPECIFICATIONS SHOWN ON THE PARTS LIST FOR THAT PART.

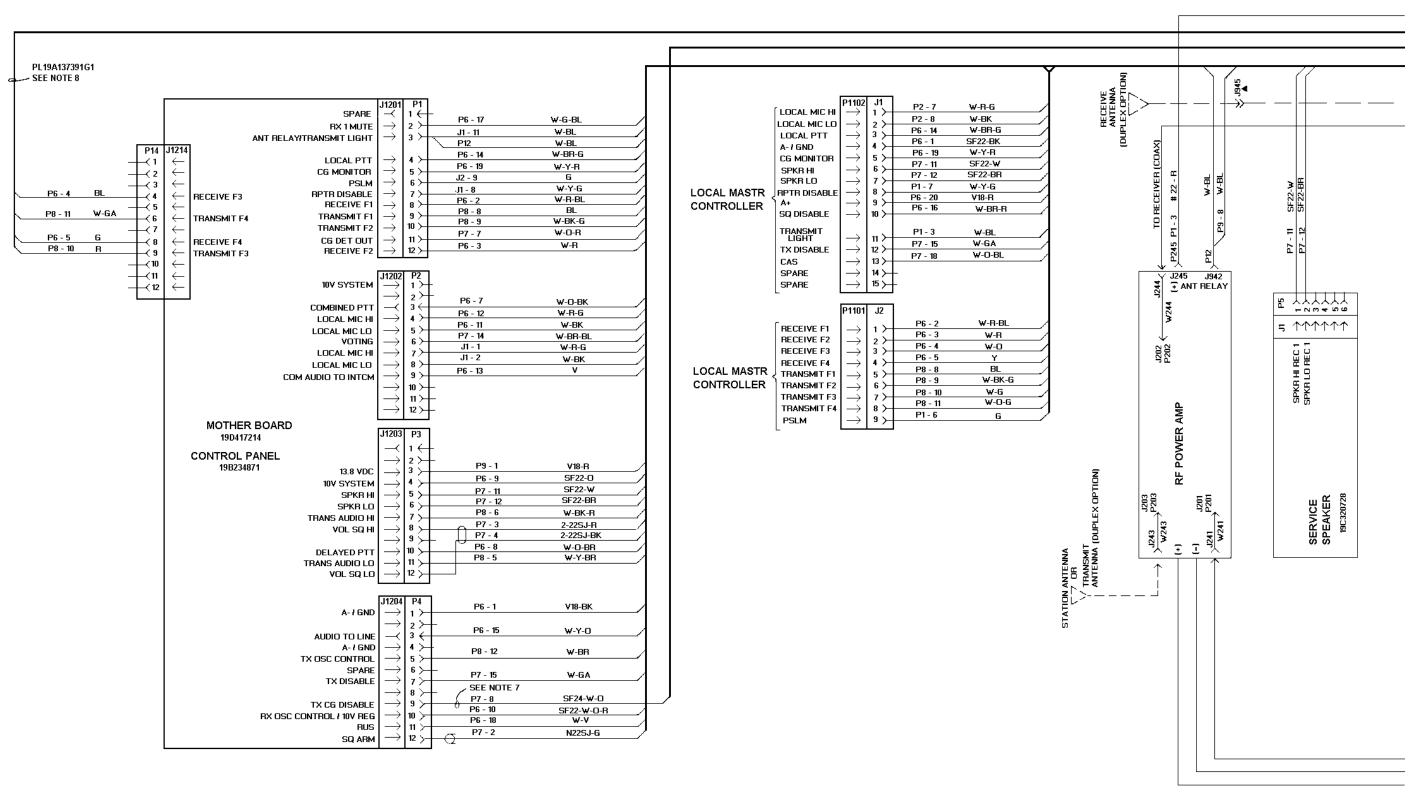
SEE APPLICABLE PRO SHEETS IN INSTRUCTI DEALING WITH THIS U	ON BOOK SECTION
CRIPTION OF CHANGE	
REVISION LETTER.	
THIS ELEM DIA	G APPLIES TO
Model No.	Rev Letter
PL19D417213G1	D
PL19D417262G1	
PL19D417262G4	
PL19D417262G18	

PARTS LIST & PRODUCTION CHANGES

		DOOR ASSEMBLY	SYMBOL	PART NUMBER	DESCRIPTION			LB14799A			LB14796B
	I.	DD417262G1		19C317957P2	Connector, Includes: Shell.		ST	HASTE II CONTINUOUS DUTY Ation Harness with metering			MASTR II CONTINUOUS DUT" STATION HARNESS
	1	1		19A700237P1	Contact, electrical: sim to Malco 003-0132-001.			19C320811G4			19C320811G1
YMBOL	PART NUMBER	DESCRIPTION		19A116781P3	Contact: 16-20 AWG; sim to Molex 08-50-0105.						
901		COMPONENT BOARD			————— PLUGS—————	SYMBOL	PART NO.	DESCRIPTION	SYMBOL	PART NO.	DESCRIPTION
		19D417213G1	P101		Part of W902 & W906 (Used in G1).	3111002	EANT NO.	DESCRIPTION	Jimbor	TANTINO.	DESCRIPTION
		———— CAPACITORS ————	P301		Part of W901&W905 (Used in G1).						
			P907		Part of AX01 (Used in G1).			JACKS AND RECEPTACLES			JACKS AND RECEPTACLES
C1	19A116080P107	Polyester: 0.1 uF ±10%, 50 VdcW.	P908		Part of A901 (Used in G1).	<i>J</i> 1		Connector. Includes:	J1		Connector. Includes:
C2	19A115680P24	Electrolytic: 400 uF +150% -10%, 18 VdcW; sim to Mallory Type TTX.	and P909				198209288P5	Shell.		19820928825	Shell.
C3	19A116080P106	Polyester: 0.068 uF ±10%, 50 VdcW.	P934		Part of A901 (Used in G1).		19B209288P29	Contact, electrical: wire size No. 22-30 AWG; sim to Molex 02-09-1141. (Quantity 13).		198209288P29	Costact, electrical: wire size No. 22-30
C3 C4			and			J2		Connector. Includes:			sim to Molex 02-09-1141. (Quantity 13).
thru	19A701534P4	Tantalum: 1 uF ±20%, 35 VdcW.	P935				198209288P3	Shell.	J2	10700000000	Connector. Includes:
C7			P951 and	19A116659P25	Shell.		198209288P29	Contact, electrical: wire size No. 22-30 ANG; sim to Molex 02-09-1141. (Quantity 9).		198209288P3 198209288P29	"bell. Costact, electrical: wire size No. 22-30 A
C8	19A701534P8	Tantalum: 22 uF ±20%, 16 VdcW.	P952			51		Connector. Includes:		198209288929	sim to Molex 02-09-1141. (Quantity 9).
		JACKS			RESISTORS	33	198209288P5	Sbell.			PLUGS
J903		Connector. Includes:	R901	5496870P31	Variable, carbon film: 10K ohms ±20%, sim		198209288929	Contact, electrical: wire size No. 22-30 AWG;	P1		Connector. Includes:
and			R901	5490670F31	to Mallory LC(25K). (Used in G2).		100200200720	sim to Molex 02-09-1141. (Quantity 9).		19B209288P20	Shell.
J904	40444005004		W904		EXCITER CABLE			PLUGS		198209288P29	Contact, electrical: wire size No. 22-30 AN
	19A116659P1	Connector, printed wiring: 3 contacts rated at 5 amps; sim to Molex 09-52-3032.			19D417262G3	P1		Condector. Includes:			sim to Molex 02-09-1141. (Quantity 11).
	19A116659P4	Connector, printed wiring: 6 contacts rated at	J933	19C851861P1	Assembly.		19B209288P20	Shell.	P2		Connector. Includes:
		5 amps; sim to Molex 09-52-3062.			PLUGS		19B209288P29	Contact, electrical: wire size No. 22-30 AVG;		198209268920	Sheil.
J905	19B219374G2	Connector, 9 contacts. Includes: Shell.	P901	19A116659P25	Shell.			sim to Molex 02-09-1141. (Quantity 11).		195209288P29	Contact, electrical: wire size No. 22-30 A sim to Molex 02-09-1141. (Quantity 6).
J936	4033513P4	Contact, electrical: sim to Bead Chain L93-3.	P906	19A127042P1	Terminal, solderless: sim to Malco 12093-12.	P2		Connector. Includes:		198209288230	Contact, electrical: male; sim to Molex
J937		Part of W901 & W905.			———— MISCELLANEOUS—————		19B209288P20	Shell.			02-09-2141. (Quantity 1).
J938		Part of W902 & W906.					19B209288P29	Contact, electrical: wire size No. 22-30 AWG; sim to Molex 02-09 2141. (Quantity 6).	P3		Connector. Includes:
J951	19A116659P13	Connector, printed wiring: 4 contacts rated at		7878455P1 19A116781P4	Lug terminal; sim to GE89473. (Used in G1). Contact: 22-26 AWG; sim to Molex 08-50-0107.		198209268p30	Contact, electrical: male; sim to Molex		19B209288P20	Shell.
		5 amps; sim to Molex 09-64-1041.			(Used in G2 and G3).			02-09-2141. (Quantity 1).		19B209288P29	Contact, electrical: wire size No. 22-30 A sim to Molex 02-09-1141. (Quantity 9).
J952		Connector includes:		19A701785P1	Contact, electrical; sim to Molex 08-50-0404.	b 3	198209288P20	Connector. Includes: Shell.	P4		Connector. Includes:
	19A116659P11	Connector, printed wiring: 7 contacts rated at			(Used with P907, P908, P909).		198209288P20			19B209288F20	Sheil.
	101110050510	5 amps; sim to Molex 09-64-1071.		19C320679G1	Door. (Used in G1).		198209288929	Contact, electrical: wire size No. 22-30 AWG; sim to Molex 02-09-1141. (Quantity 9).		198209288P29	Contact, electrical: wire size No. 22-30 Al sim to Molex 02-09-1141. (Quantity 7).
	19A116659P12	Connector, printed wiring: 6 contacts rated @ 5 amps; sim to Molex 09-64-1061.		19C320664P1	FR (Used in G1).	P4		Connector. Includes:		19B209288P30	Contact, electrical: male; sim to Molex
		PLUGS		19B226035G1	Support (Used in G1).		19B209288P20	Spell.		198209288930	02-09-2141. (Quantity 1).
				19B226105G2	Support (Used in G1).		198209288929	Contact, electrical: wire size No. 22-30 AWG; sim to Molex 02-09-1141. (Quantity 7).	P5		Connector. Includes:
P907 thru		Part of A901		19B234589P1	Pawl. (Used in G1).		19B209288P30	Contact, electrical; male; sim to Molex		198209288P23	Shell.
P909				19C336435P1	Knob. (Used in G1).			02-09-2141. (Quantity 1).		19B209288F29	Contact, electrical: wire size No. 22-30 AN sim to Nolex 02-09-1141. (Quantity 2).
P934		Part of A901		N193P808B6	Tap Screw;, Phillips POZIDRIV: No. 6-20	P5		Connector. Includes:	P6	19A143191G1	Connector includes 19C330656P1 - SHELL and
and P935				5 40000 4 Do	X 1/2 (Part of door latch)		19B209288P23	Shell.	thru P8		19A115793P1 - CONTACTS
1 000		RESISTORS		5493361P8	Washer, spring tension. (Part of door latch)		19B209288P29	Contact, electrical: wire size No. 22-30 AWG; sim to Molex 02-09-1141. (Quantity 4).	P9		Connector. Includes:
				4035664P8	Nut, self locking. (Used on hinge).	P6	19414319161	Connector includes 19C330656P1 - SHELL and		198209288P4	Shell.
R1 and	19A701250P444	Metal film: 280K ohms ±1%, 1/4 w.		19A115161P2	Sleeving. (Used in G1).	thru P8		194115793P1 - CONTACTS		19B209288F30	Contact, electrical: male; sim to Molex
R2				19B226035G2	Support (Used in G1).	58		Connector. Includes:			02-09-2141. (Quantity 1).
R3	19B209358P106	Variable: 10K ohms ±5%, 1/4 w; sim to CTS		N402P39B6	Flatwasher: No. 10. (Used in G1).		19820928824	Sheli.		19B209288P2	Costact, electrical: sim to Molex 02-09-210 (Cuantity 1).
		X-201.		19A115874P1	Catch, friction. (Used in G1).		19B209288P30	Contact, electrical: male; sim to Molex $02-09-2141$. (Quantity 1).	P12	19A115793P1	Contact, electrical: sim to Malco 2700.
R4	19A700106P71	Composition: 2.2K ohms ±5%, 1/4 w.		19B201074P204	Tap screw, phillips POZIDRIV: No. 4-40 x 1/4.		198209288P2	Contact, electrical: sim to Wolex 02-09-2101.			
R5	19A700106P75	Composition: 3.3K ohms ±5%, 1/4 w.		19B201074P204	(Used with P101).		19820828692	(Quantity 1).	*COMPONI	NTS ADDED DE	ETED OR CHANGED BY PRODUCTION CHA
R6	19A700113P3	Composition: 3.3 ohms ±5%, 1/2 w.		19A116686P2	Nut, sheet spring. (Used in G1).	P12	19A115793P1	Contact, electrical: sim to Malco 2700.			
		MISCELLANEOUS		N529P11B6	Plug Button (Used in 3/8 inch hole).	P13	19B219534P1	Connector, plug: 9 male contacts.	Chase		
	5491541P302	Spacer (Uport in Cd)		19B201074P305	Tap screw, Phillips POZIDRIV: No. 6-32 x 5/16.				a 'Rev	alon Letter which is	improve performance or to simplify circuits are identified by stamped after the model number of the unit. The revision
	19B219761P3	Spacer. (Used in G1).			(Used to secure J937).	781	19A130051G1	Plate.		d on the unit include tions of parts affected	a all previous revisions. Refer to the Parts List for the by these revisions.
	19621976123	Jumper (Used in G1).		19B209519P1	Polarity tab. (Used with P901, P951, and P952.					- COMPONENT BOA	
		CABLES		19A121676P2	Guide Pin (Used with J931-J933).					Fo provide carrier cont Added H78 and H79 at F	rol alarm access holes, to provide alarm tone capability. 907 pin 2 and 6 on the printed wire board 19D417205P1.
W901	19B233742G1	Cable, RF: approx 14 inches long, 350 VRMS,		19A116496P1	Cable clip. (Used in G1).					- COMPONENT BOA	
W000	54040000404	500 Vdc operating voltage.		7115130P9	Lockwasher, Internal tooth: No. 3/8. (Used in					o Improve adjacent ch J931-1, Deleted H62	annel selectivity. Added a No. 18 black wire from P951-21 , Added connection between J951-21 to J904-20, Deleted
W902	5491689P104	Cable, RF: approx 4 inches long, 350 VRMS, 500 Vdc operating voltage.			G1).				c	onnection between JSt	04-17 and J904-20,
/903				7165075P2	Hex nut, brass: thread size No. 3/8-32. (Used in					- COMPONENT BOA	
302		CABLE ASSEMBLY 19D417262G2		402715004	G1). Bubber ebennel (llead in C1)	*COMPON	ENTS ADDED DE	I LETED OR CHANGED BY PRODUCTION CHANGES		o improve adjacent ch - <u>COMPONENT BOA</u>	annel selectivity of Mile Stations. Added C4 through C7.
				4037158P4	Rubber channel. (Used in G1).	COMEON		LETER ON CHARGED BY PRODUCTION CHANGES			<u>RD 19D41/213G1</u> line. Added capacitor C8 (19A701534P8), from J903-11 to A
		JACKS		N529P18B6	Plug button (Used in G1).						
J931	19C851861P1	Assembly.									
and											

DESCRIPTION AND MAINTENANCE

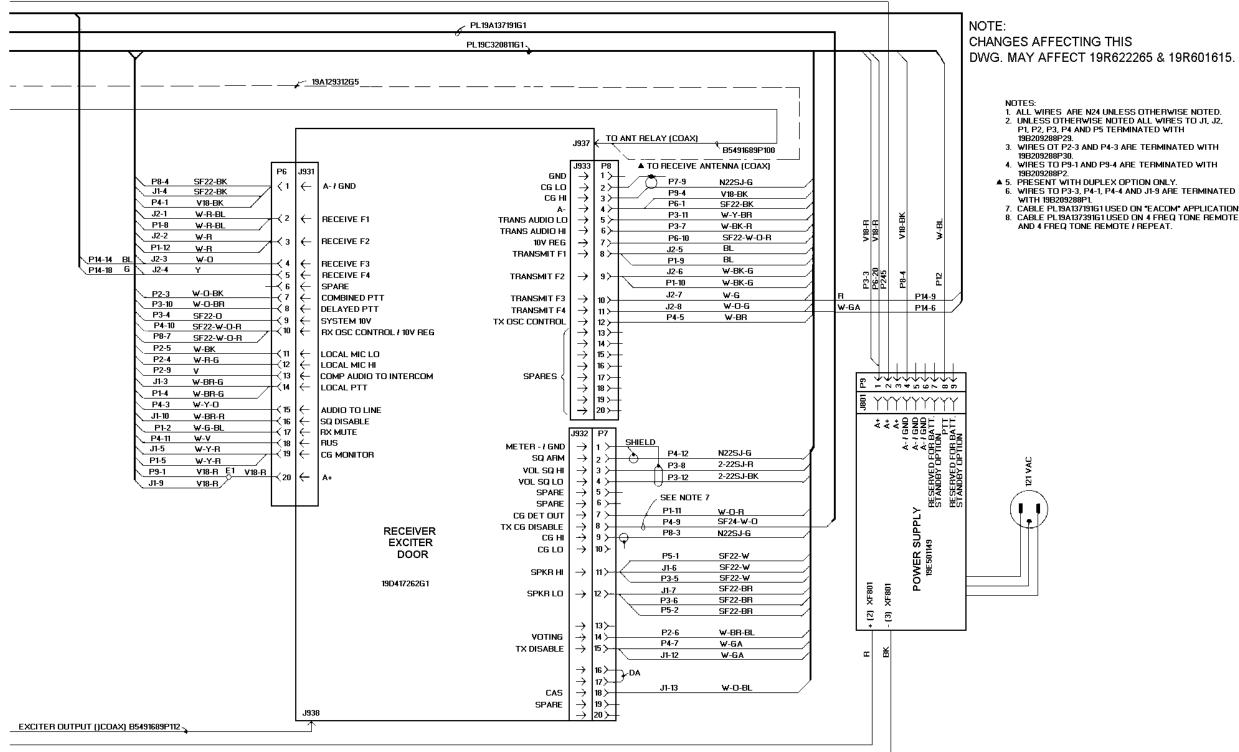
LBI-31899G



CONTINUOUS DUTY STATION HARNESS WITHOUT METERING 19C320811G1

(19R622032, Rev. 15)

INTERCONNECTION DIAGRAM



(19R622032, Rev. 15)

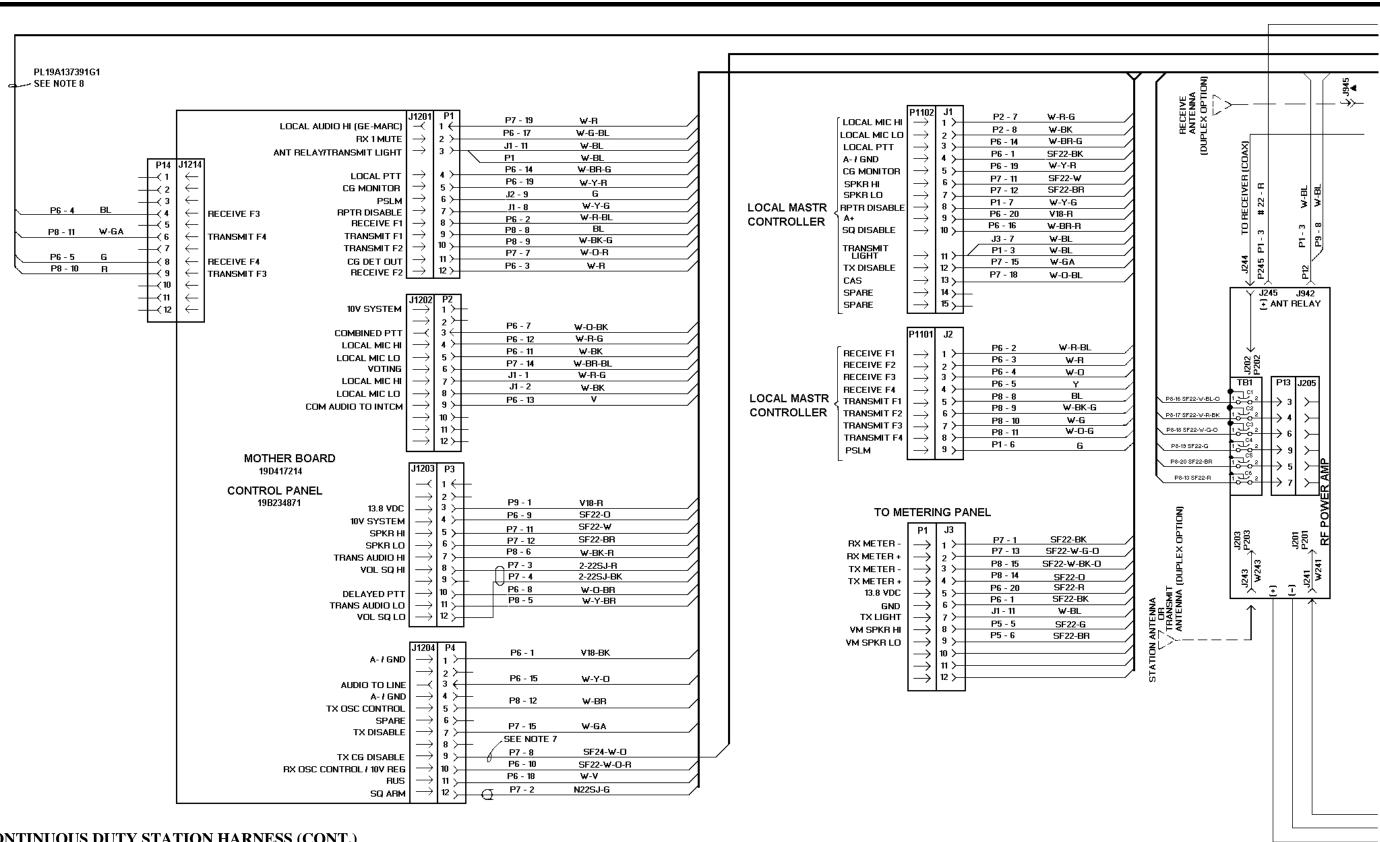
LBI-31899G

CHANGES AFFECTING THIS DWG. MAY AFFECT 19R622265 & 19R601615.

- NOTES: 1. ALL WIRES ARE N24 UNLESS OTHERWISE NOTED. 2. UNLESS OTHERWISE NOTED ALL WIRES TO J1, J2, P1, P2, P3, P4 AND P5 TERMINATED WITH
- 19B209288P29. 3. WIRES OT P2-3 AND P4-3 ARE TERMINATED WITH
- 19B209288P30. 4. WIRES TO P9-1 AND P9-4 ARE TERMINATED WITH
- CABLE PL19A13719161 USED ON "EACOM" APPLICATIONS ONLY.
 CABLE PL19A13739161 USED ON 4 FREQ TONE REMOTE AND 4 FREQ TONE REMOTE / REPEAT.

CONTINUOUS DUTY STATION HARNESS WITHOUT METERING 19C320811G1

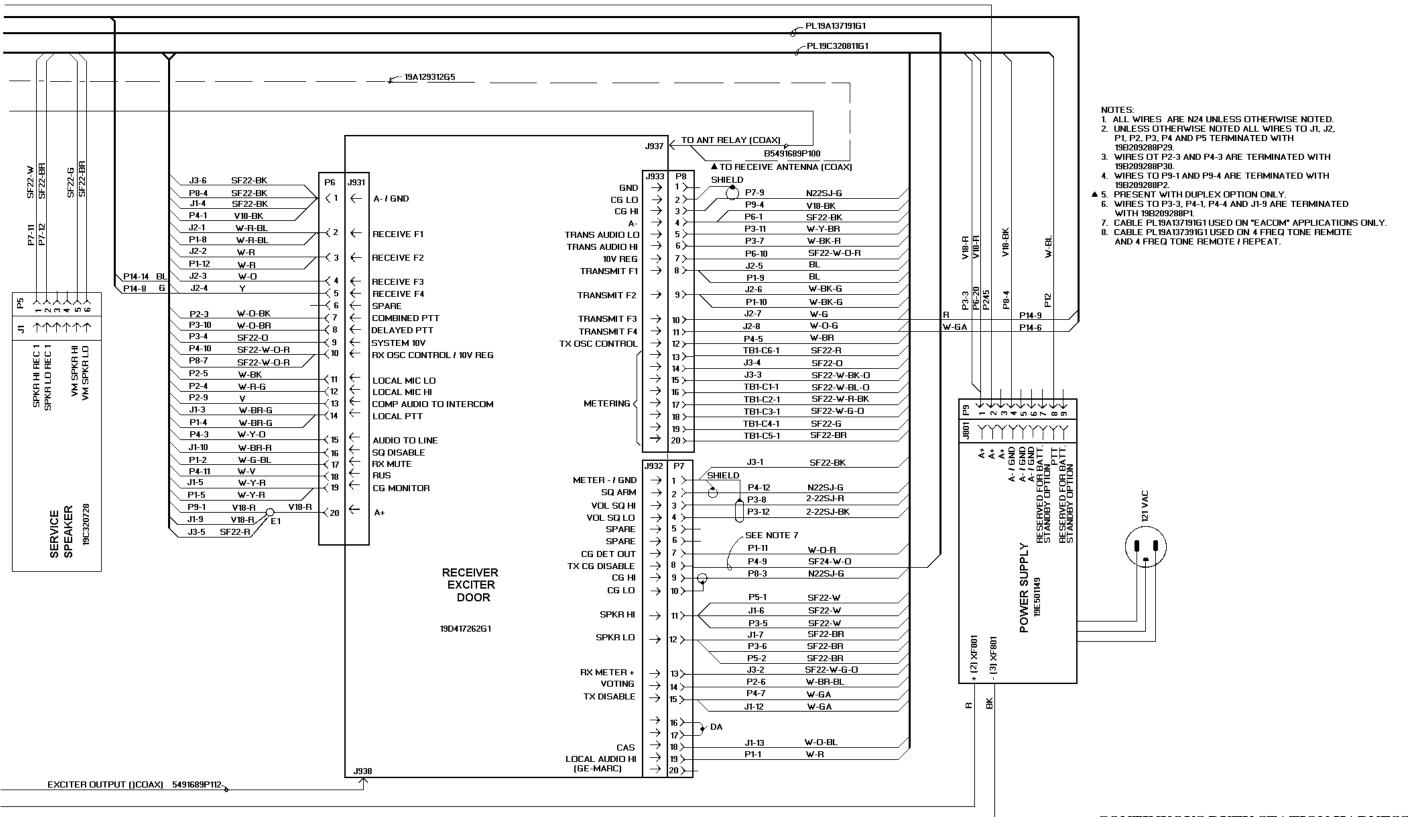
INTERCONNECTION DIAGRAM



CONTINUOUS DUTY STATION HARNESS (CONT.) WITH METERING 19C320811G4

(19R622055, Rev. 14)

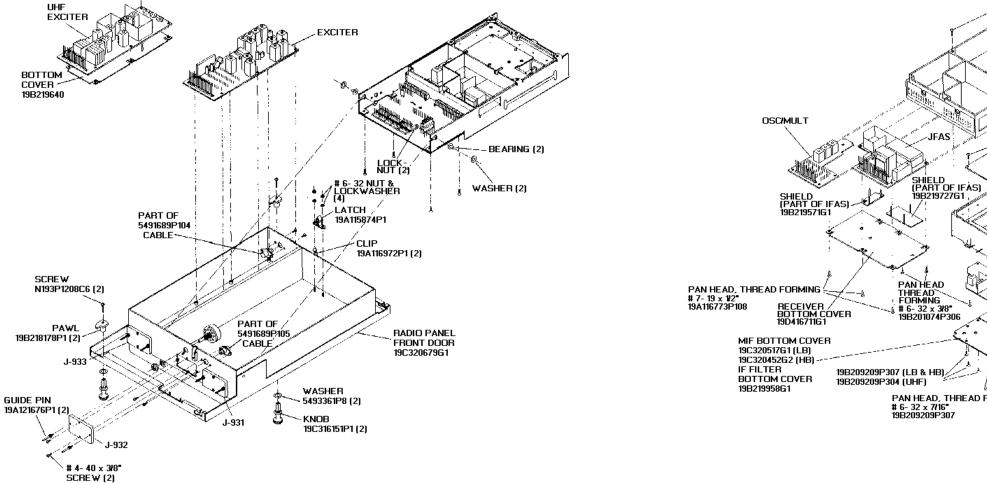
INTERCONNECTION DIAGRAM

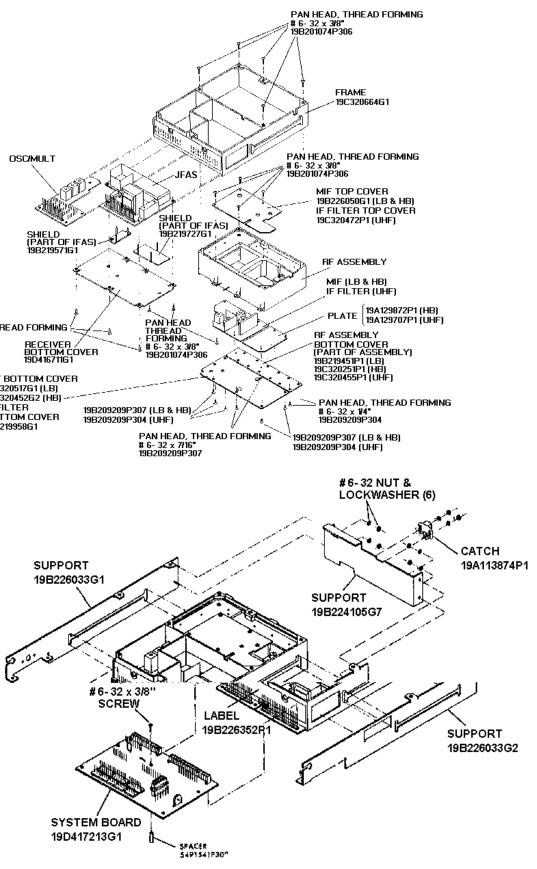


LBI-31899G

CONTINUOUS DUTY STATION HARNESS WITH METERING 19C320811G4

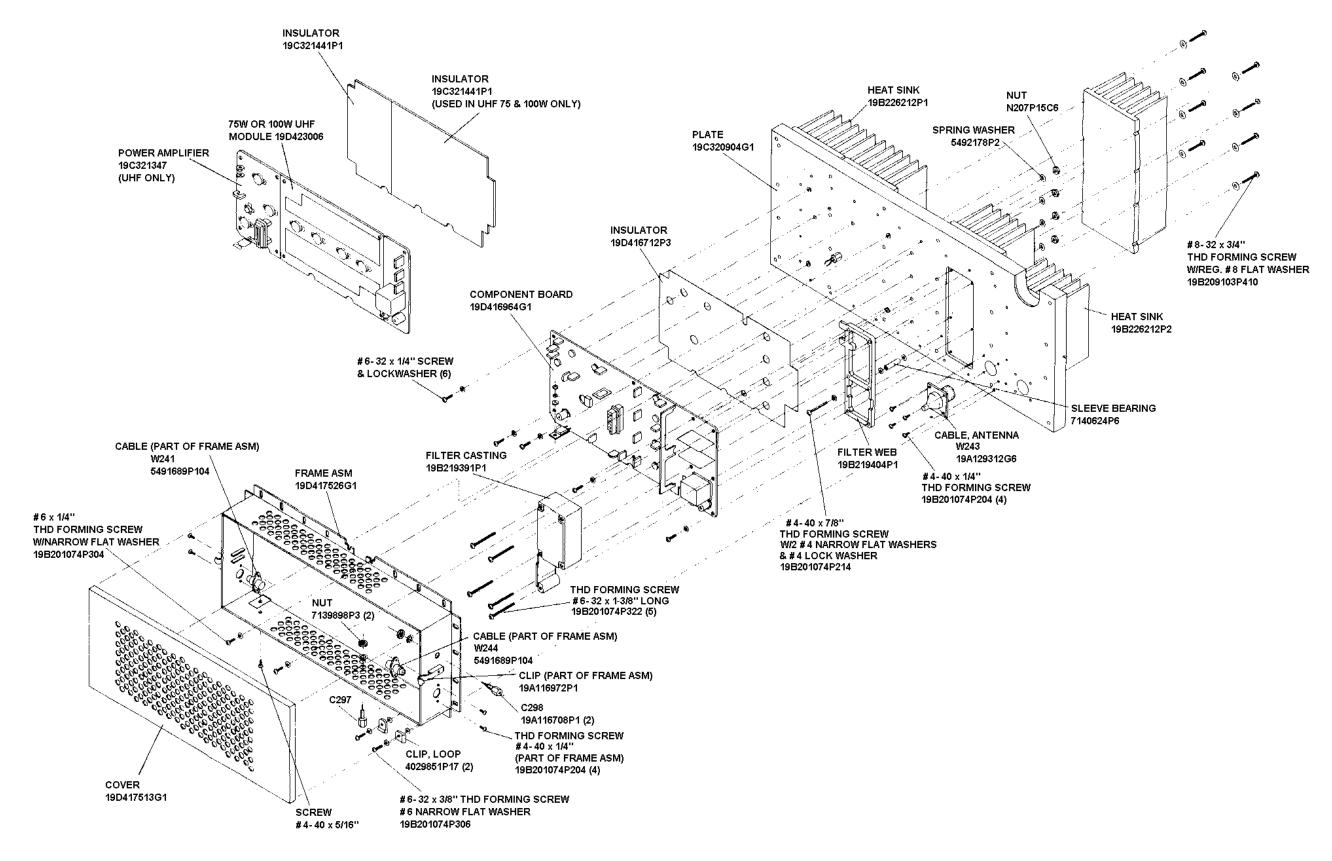
(19R622055, Rev. 14)





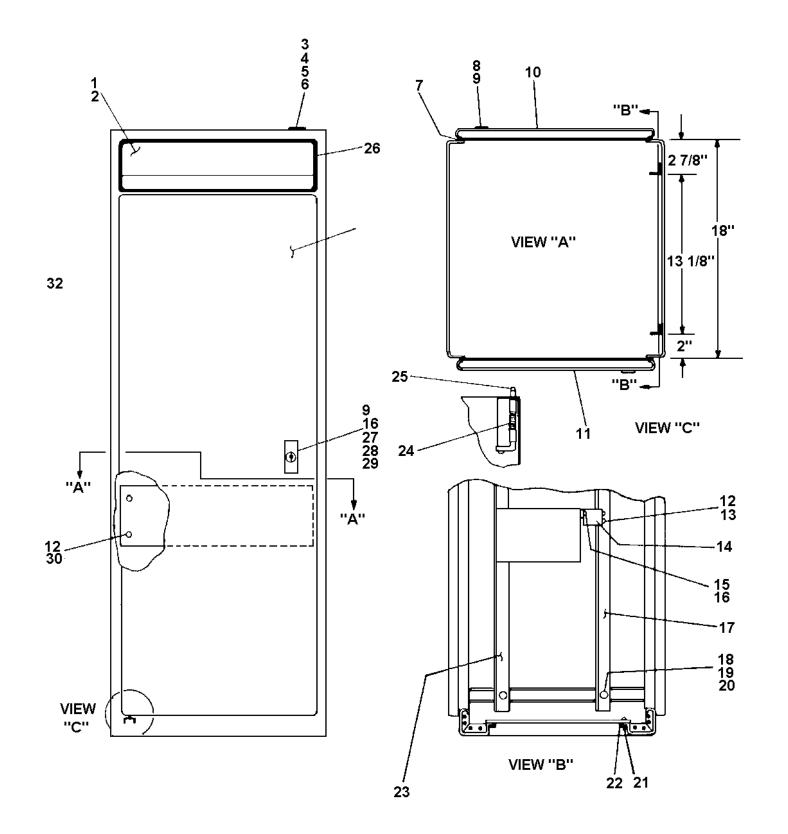
RADIO PANEL FRONT DOOR

MECHANICAL PARTS BREAKDOWN



LBI-31899G

TRANSMITTER POWER AMPLIFIER



STATION CABINETS

PARTS LIST

1.0149777 PLOOR WOUNT STATION CABINET ISD4(70586) (SEE RC-2804)

BQL	PART NO.	DESCRIPTION
	19D41762361	Grille.
	19822631891	Grille plate. (Located under grille).
	198219744G2	Strain Polief.
	NB0P15008C6	Machine screw: No. 8-32 # 1/8.
	N210P15C6	Hex nut: No. 8-32.
	N403P16C6	Lockwasher, external tooth: No. B.
	18A126220P1	Gasket, door.
	198209539P2	Lock, rear door; sim to Chicago Lock Co. 1703-57.
	198209509 P 0	Key; sim to Chicago Lock Co. 1000 GR.
	19032075602	Door, rear. 64 inch.
	19C32075RG)	Door, Ironi. 59 inch.
	19A134011P1	Tap screw: No. 10-16 x 1-1/8. (Quantity 52).
	7160861932	Nut, sheet spring; sim to Tinnerman C)794-)07-24. (Quantity 16).
	19822616022	Support.
	N80P1600BCE	Nachine screw: No. 10-32 x 1/2.
	N403P1.9C6	Lockwasher; No. 10.
	19822609492	Support.
	P80P21012C6	Machine scree: No. 1/4-20 x 3/4.
	N403P25C6	Lookwasher: No. 1/4.
	N402P41C6	Platwasher: No. 1/4.
	N80P15006C6	Machine screw: No. 8-32 x 3/8.
	716086125	Nut, sheet spring; sim to Tinnerman C1505-1032-157.
	19R226094P1	Support.
	L94129902PI	Spring.
	19822 6 08811	Pin binge.
	18822609261	frame.
	19B209539P1	Lock, Front; aim to Chicago Lock Co. 4260-1.
	N80P16007C6	Machine screw: No. 10-32 x 7/16.
	N210P16C6	Nex nut: No. 10-32.
	7160861931	Noi, sheet spring; sim is Tinnerman C18610-001.
	4031053P7	Nut, sheet spring; sim to Tinnerman C12046-D12-67.

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES

PARTS LIST

UH1-49757

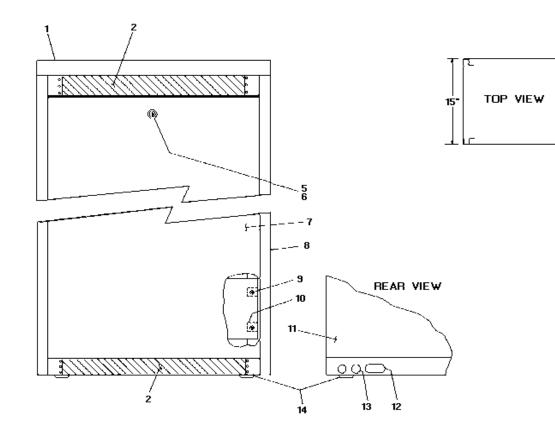
DESK WATE STATION CABINET CONTINUODS AND INTERMITTANT DHTY (SEP RC-2003)

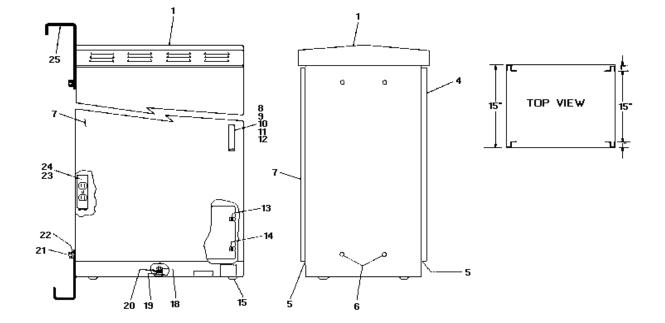
PARTS LIST

1.814976E

50LF WOUNT STATION CABINEY CONTINEODS AND INTERNITANT DUTY 190-11755051 (NEF RC2805)

1 190330655 2 190320654 3 190320654 4 5 5 549168274 6 549368274 7 1903363020 1903207440 1903207440 8 1904172310 9 3943340414 10 7160861935 11 1903363020 12 1941340326 13 1941340136 14 1941340156 15 19032061389 4 1941340156 5 5491682133 6 5491682133 6 5491682133 6 5491682133 7 2903383000000000000000000000000000000000	SSP1 Top. SAP1 Screen. (Not Used). (Not Used). (Not Used). (Not Used). 123 Louk. Yale and Towne EF: 124 Front door. 1251 Front door. 1467 Pront door. 1468 Second. 1468 Buyblag, strain relief: 147 Protective plug: uim to (Quantity 4). 44 2000 148 Lock. Talkaand Towny F65 1 Key. Yale and Towne BP-14 14 Key. Yale and Towne BP-14 15 Pront door. 16 Front door. 17 Front door.	<pre>HE BF-104. ler Models). MRS). (lncludes lioms 1 kmd 2 -16 x 3/4. (Quantity 52). elM to 7jingerman CJ794-J07-2 ir Models). Quantity 1). lef: sim to Heyco UB 1093. im to Caplug BPF-1/2. JNCS CANINGT by F6557(X). e BF-104</pre>	and 2). 3). 307-24. 107-24. 107-24. 127 130 148 177 148 177 188 197 188 297 297 297 297 297 297 297 297	7 8 9 10 13 13 14 15 18 19 20 21 22 23 24	19041753001 19041754302 19413412801 19413405801 19041754301 19041754301 19041754301 19041754301 19041754301 190415086 21001086 21001086 21001086 21001087 210068103 19413401572 NP196405 N21092186 2401514122 220166 2401514122 220166 2401514122	<pre>Gabinet. (Less Doors). Door, left band. Door seal. (Front and rear). Protective plug. Door, right hand. Door headle. Strike catch. Machine merer: No. 8-32 x 1/2. Lockwasher, external (coin: No. 8. Nex not: No. 8-32. Tap screw: No. 10-26 x 1-1/8. (Quantity 52). Nut, enset spring: nim to Tincorman C19640-1088-000. (Quantity 52). Protective plug. Nameplate. Mamamamamamamamamamamamamamamamamamamam</pre>
2 190320654 3 4 5 549)68274 6 549)58274 7 1903207440 8 2804)72310 9 394,33401,37 10 7160861935 11 1903363020 12 194,1340326 13 194,1340326 14 194,1340146 14 194,1340156 15 194,1340156 16 5491682733 6 5491682733 6 5491682733 6 5491682733 6 5491682733 6 5491682733	SSP1 Top. SAP1 Screen. (Not Used). (Not Used). (Not Used). (Not Used). 123 Louk. Yale and Towne EF: 124 Front door. 1251 Front door. 1467 Pront door. 1468 Second. 1468 Buyblag, strain relief: 147 Protective plug: uim to (Quantity 4). 44 2000 148 Lock. Talkaand Towny F65 1 Key. Yale and Towne BP-14 14 Key. Yale and Towne BP-14 15 Pront door. 16 Front door. 17 Front door.	<pre>wne FESS7DX1. ne RF-10A. ler Models). MRS). ()ncludes ligms 1 and 2 -15 a 3/4. (Quantity 52). elM to 7;nnctman C:)794-102-2 ir Models). Quantity 1). lef: sim to Heyco UB 1093. im to Caplug EPF-1/2. JNCE CAULNET by FESS7(X). e BF-104</pre>	5 5 6 7 7 8 7 7 7 7 7 7 7 7 7 7 7 7 7	6 7 8 9 10 1) 12 13 14 15 16 17 18 19 20 21 22 23 24	19413412891 19513405891 19513405891 19543501 19543501 19543501 19543501 1954350 195155 195155 1951955 1951955 1951950 1951950 1951950 1951950 1951950 1952501605 1952501605	<pre>Door, leit hand. Door seel. (Front and rear). Protective plug. Door, right hand. Door handle. Strike cuich. Machino morow: No. 8-32 x 1/2. Lockwashor, watermal (coth: No. 8. Nex not: No. 8-32. Tap screw: No. 10-26 x 1-1/8. (Quantity 52). Nut, enset aprima: nim to Tincorman C19640-1088-500. (Quantity 52). Protective plug. Nameplate. Memoplate. Memoplate. Mex nut: No. 1/4-20. Lockwasher, external too(h: 1/4 inch.</pre>
2 190320654 3 4 4 5 5 548164272 6 549368294 7 1903363020 1903207440 8 2804372310 9 294324034 1903207440 8 2804372310 9 294324034 1903207440 19032000 1903207440 1903207440 1903207440 1903207440 1903207440 1903207440 1903207440 1903207440 1903207440 1903207440 1903207440 1903207440 1903200 190320 19	5491 Screen. (Not Used). (Not Screen. (Not Screen. (Not Used). (Not Screen. (Not Used). (Not U	<pre>HE BF-104. ler Models). MRS). (lncludes lioms 1 kmd 2 -16 x 3/4. (Quantity 52). elM to 7jingerman CJ794-J07-2 ir Models). Quantity 1). lef: sim to Heyco UB 1093. im to Caplug BPF-1/2. JNCS CANINGT by F6557(X). e BF-104</pre>	0971. 0971. 0971. 0971. 0971. 0971. 0971. 0971. 0971. 0971. 0971. 0971. 0971. 0971. 0971. 0971. 0971. 00	6 7 8 9 10 1) 12 13 14 15 16 17 18 19 20 21 22 23 24	19413412891 19513405891 19513405891 19543501 19543501 19543501 19543501 1954350 195155 195155 1951955 1951955 1951950 1951950 1951950 1951950 1951950 1952501605 1952501605	Door seel. (Front and rear). Protective plug. Door, right hand. Door handle. Strike caich. Machino morow: No. 8-32 x 1/2. Lockwashor, saturnal (coth: No. 8. Not No. 8-32. Tap screw: No. 10-26 x 1-1/8. (Quantity 52). Nut, enset spring: nim to Tincorman (19640-1088-500. (Quantity 52). Protective plug. Nameplate. Mamaplate. Mamaplate. Mamaplate. Mamaplate. Mamaplate. Mamaplate. Mamaplate. Mamaplate. Mamaplate. Mamaplate. Mamaplate. Mamaplate. Mamaplate. Mamaplate. Mamaplate. Mamaplate. Mamaplate. Mamaplate. Mamaplate. Mamap
S 5 4 5 5 549)68214 7 19C385024 7 19C385024 8 2804372310 9 29A3240136 0 7160861855 1 19C3860302 19 19C3860302 19 19C3860302 19 19C3860302 19 19C3860302 19 19C380302 19 19C3805656 19 19C3206566 2 19C3206566 2 19C3206566 3 19C3206566 4 5 5 5491682733 6 5491682733 6 549168273	 (Not Used), (Not Used), (Not Used), (Not Used), (Not Vale and Towne PE) 201 Front door. (Earlier Models), (AP) Front door. (Earlier Models), (AP) Tap scraw: No. 10-16 a 2 (Not, ebcet spring: sim to (Quantity 52), 202 Assr door. (Not Waed), (Not Used), (Not Used), (Not Used), (Not Used), (Not Used), (S3 Lock. Yale and Towne PP-14 (S3 Front door. (Earlier Models), (S3 Lock. Yale and Towne PP-14 (S3 Front door. (Earlier Model), (S3 Lock. Yale and Towne PP-14 (S3 Front door. (Earlier Models), (S4 Cabinet. (EESS DOORS). () 	<pre>HE BF-104. ler Models). MRS). (lncludes lioms 1 kmd 2 -16 x 3/4. (Quantity 52). elM to 7jingerman CJ794-J07-2 ir Models). Quantity 1). lef: sim to Heyco UB 1093. im to Caplug BPF-1/2. JNCS CANINGT by F6557(X). e BF-104</pre>	0971. 0971. 0971. 0971. 0971. 0971. 0971. 0971. 0971. 0971. 0971. 0971. 0971. 0971. 0971. 0971. 0971. 00	6 7 8 9 10 1) 12 13 14 15 16 17 18 19 20 21 22 23 24	19413405891 19041754301 194133404993 715075291 NB491500806 W40391686 W21091505 19413401191 7160861933 19413401592 N9270687 N9196405 N21092186 N40392586 19411514192 N2292501605 R40594306 19622635061	Protective plug. Door, right hand. Door headle. Strike caich. Machino morow: No. 8-33 x 1/3. Lockwashor, catoroal (coth): No. 8. Not, enset worlds: No. 8-32. Tap screw: No. 50-36 x 1-1/8. (Quantity 52). Nut, enset spring: nim to Tincerman (19640-1088-500. (Quantity 52). Protective plug. Nameplate. Mamaplate. Mamapla
4 5 5 549)68212 6 549)86214 7 19C38020440 8 2804172310 8 2804172310 9 3943340145 9 3943340145 1 19C3803020 1 19C3963020 2 19A1340145 3 19A1340145 1 19C3206585 2 19C12063836 4 19C1206387 5491682133 5491682133 6 5491682143	 (Not Used), 123. Lock. Yale and Towne FE. 23. Yale and Towne BF-126. 24. Front door. 25. Front door. (Earlier Not Gabret. (LFSS DOORS). (192) 25. Tap scraw: No. 10-15 1 2 25. Not, sheet spring: sin to (Quantity 52). 25. Rear door. 25. Rear door. (Earlier Not Gabret. (Earlier Not Gabret.) 25. Protective plug: uim to (Quantity 4). 25. Top. 25. Lock. Yale and Towne FE. 25. Lock. Yale and Towne FE. 25. Front door. 26. Front door. 27. Rear door. 28. Rear door. 29. Screan. (Not Used). 29. Lock. Yale and Towne FE. 20. Front door. 20. Front door. 20. Front door. 20. Screan. 20. Kay. Yale and Towne FE. 20. Front door. 	<pre>HE BF-104. ler Models). MRS). (lncludes lioms 1 kmd 2 -16 x 3/4. (Quantity 52). elM to 7jingerman CJ794-J07-2 ir Models). Quantity 1). lef: sim to Heyco UB 1093. im to Caplug BPF-1/2. JNCS CANINGT by F6557(X). e BF-104</pre>	5	7 8 9 10 13 13 14 15 18 19 20 21 22 23 24	19D41754301 19A13404993 715075221 NB4P3500885 N40391686 N21091585 19A13401191 7160861933 19A13401592 N9270687 N9196405 N21092186 N40392586 19A11514192 N2292501605 R40594306 19622635061	Door, right hand. Door headle. Strike caich. Machino coror: No. 8-33 x 1/2. Lockwashor, catoraal (coth): No. 8. Not, enst: No. 8-32. Tap screw: No. 10-16 x 1-1/8. (Quantity 52). Nut, enset spring: nim to Tinnerman C1960-1088-500. (Quantity 52). Protective plug. Nameplate. Mameplate. Memplate. Memplate. Hex nut: No. 1/4-20. Lockwasher, external too(h: 1/4 inch.
5 549)68272 5 549)68274 6 549)86274 7 1903353020 190320740 8 290437230 9 2943740137 9 2943740137 9 2943740137 9 2943740137 1 190380302 2 1941340137 1 1963206589 2 1941340159 1 1963206589 2 1943206139 3 1941340159 4 5491682733 6 5491682733	123 Lock. Yale and Towne P6 124 Xny. Yale and Towne B7-1 1251 Front door. 1261 Front door. 1261 Front door. 1261 Front door. 1261 Front door. 1262 Astronom. 1263 Pol, shoet spring: sin to (Quantity 52). 1262 Astronom. 1263 Pol, shoet spring: sin to (Quantity 52). 1264 Buybing, strain relief: 127 Top. 128 Protective plug: uim to (Quantity 4). 1291 Screnn. 1291 Top. 1291 Screnn. 1291 Lock. Yaleand Towne F65 138 Lock. Yale and Towne F7-11 149 Rey. Yale and Towne F7-11 1591 Front door. 1631 Front door. 1642 Cabinet. (Exes Dooks). ()	<pre>HE BF-104. ler Models). MRS). (lncludes lioms 1 kmd 2 -16 x 3/4. (Quantity 52). elM to 7jingerman CJ794-J07-2 ir Models). Quantity 1). lef: sim to Heyco UB 1093. im to Caplug BPF-1/2. JNCS CANINGT by F6557(X). e BF-104</pre>	8 8 9 10 11 12 12 12 12 12 12 12 12 12 12 12 12	8 9 10 15 12 13 14 15 16 20 21 22 23 24	15413404993 715075291 NB493500885 X21091585 18413401191 7160861933 19413401592 N9270687 N9196405 N21092186 N40592586 18411514192 N2292501605 R40594306 19622635061	Door headle. Strike caich. Maching morow: No. 8-32 x 1/2. Lockwasher, external (ooth; No. 8. Nex not; No. 8-32. Tap screw: No. 10-16 x 1-1/8. (Quantity 52). Nut, effect apring: nim to Tineerman C1980-1088-500. (Quantity 52). Protective plug. Nameplate. Mamaplate. Mamapla
6 549368234 7 1903363020 1903207440 8 2804372330 9 3943340336 10 7160861935 1 963363020 2 1903207460 2 1943340345 3 1941340145 4 1963206585 8 1943340145 4 1963206585 8 1943206132 5 5491682133 6 5491682133 6 5491682133	N4 Xey. Yale and Towne BF-1 12G1 Front door. 14D7 Pront door. 14D7 Pront door. 14D7 Pront door. 14D7 Pront door. 14D7 Tap scrur: No. 10-15 a 1 14D7 Tap scrur: No. 10-15 a 2 14D7 Tap scrur: No. 10-15 a 2 14D7 Tap scrur: No. 10-15 a 2 14D8 Nol, sheet spring: aim to (Quantity 52). 12G2 Reg door. 1407 Protective plug. 1408 Buybing, strain relief: 1409 Protective plug: uim to (Quantity 4). 141 Top. 141 Top. 142 Lock. Talwand Towny F65. 1 Key. Yale and Towny F65. 1 Key. Talwand Towne BP-14. 1 Front door. 1 Front door. 1 Cabinet. (ExES DOOKS). (1)	<pre>HE BF-104. ler Models). MRS). (lncludes lioms 1 kmd 2 -16 x 3/4. (Quantity 52). elM to 7jingerman CJ794-J07-2 ir Models). Quantity 1). lef: sim to Heyco UB 1093. im to Caplug BPF-1/2. JNCS CANINGT by F6557(X). e BF-104</pre>	5 RD4 2). 17 2). 14 17 18 19 19 19 18 097. 16 20 21 25 24	9 10 1) 12 13 14 15 16 20 21 22 23 24	 ?15075221 N4472500885 N40321686 R21021586 18413401121 7160861233 19413401522 N5220087 N21022186 N40322586 28411514122 N222501605 R40524306 19622635061 	Strike cuich. Maching morow: No. 8-32 x 1/2. Lockwasher, external (ooth: No. 8. Nex not: No. 8-32. Tap screw: No. 10-36 x 1-1/8. (Quantity 52). Nut, ehest spring: nim to Tineerman C19640-10A8-600. (Quantity 52). Protective plug. Nameplate. Mameplate. Hex nut: No. 1/4-20. Lockwasher, external too(h: 1/4 inch.
1903363020 1903363020 1903363020 1903363020 1903363020 9 2943340134 10 7160861935 11 1903363020 1200207460 1903363020 11 1903363020 1200207460 1903363020 13 1941340144 1941340144 19413401454 194134014	D2G1 Front door. H4D7 Pront door. (Earlier Model.) H4D7 Cabinet. (LESS DDORS).() H4D7 Tap scrnw: No. 10-16 ± 2 H2D7 Tap scrnw: No. 10-16 ± 2 H4D7 Tap scrnw: No. 10-16 ± 2 H4D7 Protective plug: sim to (Quantity 52). H4D8 Buybing, strain relief: SP1 Protective plug: uim to (Quantity 4). H4D7 Top. Scrnon. (Not Used). (Not Used). Lock. Talkaand Towny F65. H Key. Yale and Towne BP-14. KG3 Front door. KG5 Front door. KG5 Front door. KG4 Cabinet. (EESE DOORS). (1)	<pre>ivr Models). RRS). (Includes lioms 1 and 2 -15 + 3/4. (Quantity 52). sim to 7)innerman C3794-102-2 ir Models). Quantity 1). Laf: sim to Heyco UB 1093. im to Caplug BPF-1/2. 20CB CANINET by F6557(X1. a BP-10A</pre>	10 11 11 12 17 17 17 17 17 18 16 17 18 16 17 18 16 17 18 18 18 18 18 18 18 18 18 18	10 1) 12 13 14 15 16 20 21 22 23 24	N6492500885 W40321686 R21021585 18413401121 7180861233 19413401822 N8220687 N21022186 N40322386 28411514122 N2222501505 R40524306 19822635061	Machine Rerow: No. 8-32 x 1/2. Lockwasher, external (ooth: No. 8. Her not: No. 8-32. Tap screw: No. 10-16 x 1-1/8. (Quantity 52). Nut, ehest apring: nim to Tineerman C19640-10AB-600. (Quantity 52). Protective plug. Nameplate. Mameplate. Her nut: No. 1/4-20. Lockwasher, external too(h: 1/4 inch.
1903207441 1903207441 1903207441 9 1943340341 0 7160861933 1 1903363022 19013207462 1901340326 2 1941340326 3 1941340326 4 196132065869 2 19032061389 3 1941340145 4 196132065869 2 19032061389 3 54916821733 6 5491682181 7 190336306363	1407 Pront door. (Exrlier Mod 1163 Cabinet. (LESS DODES). (1164 Cabinet. (LESS DODES). (1164 Cabinet. (LESS DODES). (1164 Tap scrar: No. 10-16 : 2 1163 Tap scrar: No. 10-16 : 2 1164 Tap scrar: No. 10-16 : 2 1164 Tap scrar: No. 10-16 : 2 1162 Pol, sheet epring: sin to (Quantity 52). 1262 Rear door. (Exrlier Mode 1264 Bushing, strain relief: 127 Protective plug: uim to (Quantity 4). 44 INCE 1281 Protective plug: uim to (Quantity 4). 1291 Scrann. (Not Used) (Not Used) (Not Used). Lock. Yalkaand Towny F65; 1383 Lock. Yalkaand Towny F65; 1434 Front door. 1535 Pront door. (Earlier Mode) 164 Cabinet. (ESES DOOR). (;;	<pre>RB(). (1ncludes 11cms 1 and 2 15 + 3/4. (Quantity 52). aim to 7)nncrman C1794-102-2 ir Modela). Quantity 1). Lef: sim to Heyco UB 1093. im to Caplug BPF-1/2. 20CB CANINET by F6557(X). a BP-10A</pre>	8 nd 2), 13 8 nd 2), 13 307-24. 15 093. 16 20 27 28 24 25	1) 12 13 14 15 18 19 20 21 22 23 24	940391636 R21091535 18413401191 7180861933 19413401592 N9220087 N9196405 N9196405 N9196405 N9192386 19411514192 N2292501605 R40594306 19822635061	Lockwasher, external (ooth: No. 8. Nex not: No. 8-32. Tap screw: No. 10-26 x 1-1/8. (Quantity 52). Nut, ehest apring: nim to Tinnerman C19640-10AB-600. (Quantity 52). Protective plug. Nameplate. Memplate. Hex nut: No. 1/4-20. Lockwasher, external too(h: 1/4 inch.
8 2804172310 9 2941340141 10 7160861833 1 19C336302C 2 1941340345 3 1941340145 4 196336305586 2 1941340345 4 19633065866 5 5491682783 6 5491682783 7 196338306355	 11G3 Cabinet. (LESS DOORS). (1) 11G3 Tap screw: No. 10-16 a 2 12G2 Tap screw: No. 10-16 a 2 1358 Pol, sheet spring: sim to (Quantity 52). 12G2 Rear door. (Eurlier Model 12F1 Protective plug: (Quantity 4P6 Boubleg, strain relief: 12F1 Protective plug: uim to (Quantity 4). 12F1 Top. 13F1 Top. 14F1 Top. 14F1 Top. 15F1 Top. 15F2 Top.<!--</td--><td><pre>RB(). (1ncludes 11cms 1 and 2 15 + 3/4. (Quantity 52). aim to 7)nncrman C1794-102-2 ir Modela). Quantity 1). Lef: sim to Heyco UB 1093. im to Caplug BPF-1/2. 20CB CANINET by F6557(X). a BP-10A</pre></td><td>nd 2).). 14 107-24. 15 16 17 18 093. 18 20 23 24 23</td><td>12 13 14 15 16 17 18 19 20 21 22 23 22 23 24</td><td>R210P15B5 18A134011P1 7180861P33 19A134015P2 NP220087 NP186405 N210P2386 19A115141P2 N22P2501605 R405P4306 19R22635061</td><td><pre>Hex nut: No. 8-32. Tap screw: No. 10-26 x 1-1/8. (Quantity 52). Nut, effect apring: nim to Tinbérman C19640-1048-600. (Quantity 52). Protective plug. Nameplate. Mameplate. Hex nut: No. 1/4-20. Lockwasber, external too(h: 1/4 inch.</pre></td>	<pre>RB(). (1ncludes 11cms 1 and 2 15 + 3/4. (Quantity 52). aim to 7)nncrman C1794-102-2 ir Modela). Quantity 1). Lef: sim to Heyco UB 1093. im to Caplug BPF-1/2. 20CB CANINET by F6557(X). a BP-10A</pre>	nd 2).). 14 107-24. 15 16 17 18 093. 18 20 23 24 23	12 13 14 15 16 17 18 19 20 21 22 23 22 23 24	R210P15B5 18A134011P1 7180861P33 19A134015P2 NP220087 NP186405 N210P2386 19A115141P2 N22P2501605 R405P4306 19R22635061	<pre>Hex nut: No. 8-32. Tap screw: No. 10-26 x 1-1/8. (Quantity 52). Nut, effect apring: nim to Tinbérman C19640-1048-600. (Quantity 52). Protective plug. Nameplate. Mameplate. Hex nut: No. 1/4-20. Lockwasber, external too(h: 1/4 inch.</pre>
9. 294324014 10. 7160861933 11. 19C396302C 20C820746C 2. 1941340326 3. 1941340142 4. 1961340142 4. 1961340142 5. 1963206389 2. 1963206389 3. 1963206389 3. 1963206389 5. 5491682183 5. 5491682181 7. 19633630568	 (iP) Tap screw: No. 10-16 . 3 (iP) Tap screw: No. 10-16 . 3 (Sountity 52). (Not Used). (Not Used). (Not Used). (Not Used). (Sountity 52). (Sountity 52). (Sountity 52). (Sountity 52). (Sountity 52). (Sountity 52). (Not Used). (Sountity 52). (Sount	-15 x 3/4. (Quantity 52). #30 to 7) norman C3794-302-2 ar Models). Quantity 1). Lef: sim to Heyco US 1093. im to Caplug BPF-1/2. 30CB CANINET by F6557(X). # BP-10A	RNG 2). 17 ;). 14 107-24. 15 16 17 18 19 18 27 23 24 23) 3 14 15 18 19 20 21 22 23 24	19A13401191 7180881933 19A13401892 M9270687 N9196405 N31092386 N40392586 19A11514192 N2292501806 R40594506 19822605061	Tap screw: No. 10-26 x 1-1/8. (Quantity 52). Nut, eheat apring: nim to Tinoerman C19640-10A8-600. (Quantity 52). Protective plug. Nameplate. Mameplate. Hex nut: No. 1/4-20. Lockwesber, external too(h: 1/4 inch.
1 190396000 1 190396000 1 190396000 2 1941340325 3 1941340145 4 1941340145 1 19032065569 2 19032065569 2 19032061389 3 5491682133 6 549168214 7 190336366365	 Pbi, shoet spring: sim to (Quantity 52). Rer door. (Eurlier Mode 2PI Protective plug. (Quanti 4P6 Buybing, strain relief: 5P1 Protective plug: uim to (Quantity 4). 49 DNCB 1 40 DNCB 1<td><pre>&IN to 7; nncrman C:)794-102-2 ir Modela). Quantity 1). Laf: sim to Heyco UB 1083. im to Caplug BPF-1/2.</pre></td><td>2). 107-24. 15 16 17 16 17 18 20 21 22 24 25 24</td><td>14 15 16 17 18 19 20 21 22 23 23 24</td><td>7180881933 19813401892 NP370087 NP196405 N21092386 N40392086 19811514192 N2292501505 R40584306 19822605061</td><td>Nut, eheet apring: nim to Tinbérman C19840-1048-600. (Quantity 52). Protective plug. Nameplate. Mameplate. Hex nut: No. 1/4-20. Lockwasber, external too(h: 1/4 inch.</td>	<pre>&IN to 7; nncrman C:)794-102-2 ir Modela). Quantity 1). Laf: sim to Heyco UB 1083. im to Caplug BPF-1/2.</pre>	2). 107-24. 15 16 17 16 17 18 20 21 22 24 25 24	14 15 16 17 18 19 20 21 22 23 23 24	7180881933 19813401892 NP370087 NP196405 N21092386 N40392086 19811514192 N2292501505 R40584306 19822605061	Nut, eheet apring: nim to Tinbérman C19840-1048-600. (Quantity 52). Protective plug. Nameplate. Mameplate. Hex nut: No. 1/4-20. Lockwasber, external too(h: 1/4 inch.
1 1903963020 200207460 2 1941340325 3 1941340145 4 1941340155 4 19613206585 2 1903206135 3 1903206135 3 5491682123 6 549168211 7 19033630005	(Quantity 52), 262 Rear door. 468 Rear door. (Eurlier Mode 201 Protective plug. Quanti 496 Buyblog, strain reflef: 501 Protective plug: uim to (Ouantity 4). 49 JNCB - 49 JNCB - 4	r Modela). Quantity 1). Lef: sim to Heyco UB 1093. im to Caplug BPF-1/2. 2NCB CANINE? DV F65574X1. e BF-104	107-24. 15 16 17 18 20 21 22 24 25 24	15 10 17 18 19 20 21 22 23 23 24	19413401572 NF270647 NF196405 N21072386 N40592586 28411514172 N2272501606 R40594306 19822605001	Protective plug. Numeplate. Mameplate. Hex nut: No. 1/4-20. Lockwasber, externul too(h: 1/4 inch.
1905/3207440 1907440 1907440 1907440 1907440 1907440 1907440 1907440 1907400 190750 1907400 1907500 190750 190	 4GR Rest door. (Eurlier Mode 2P1 Protective plug. (Quantity 4) 4P6 Buybing, strain refler: 5P1 Protective plug: uim to (Quantity 4). 44 DNCB 5P1 Top. 3P1 Screan. (Not Used). (Not Used). Rey. Yale and Towne BP-16 KG3 Front door. (Earlier Mode (G4 Cabinet. (EESS DOORs). ()) 	Quantity 1). Lef: sim to Heyco UB 1093. im to Caplug BPF-1/2. 2NCB CANINET by P65576X1. e BP-10A	16 17 18 19 19 19 19 20 20 24 25	10 17 18 20 21 22 23 24	NP270687 NP196405 N210P2186 N403P2386 284115141P2 N22P2501605 R405P4306 19822635061	Уктеріate. Mamepiate. Нех nut: No. 1/4-20. Lockwasber, externul tooth: 1/4 inch.
2 1941340326 3 1941340145 4 1941340145 2 1941340145 2 1941340145 2 1941340145 3 194145 3 1941340145 3 1941340145 3 1941340145 3 1941340145 3 194140145 3 194140000000000000000000000000000000000	12P1 Protective plug. (Quantity 4) 496 Bushing, strain relief: 591 Protective plug: uim to (Quantity 4). 49 AFCE 591 Top. 391 Scregn. (Not Used) (Not Used) (Not Used) Lock. Yalkaand Towny F65; 1 Rey. Yale mmd Towne BP-16; KG3 Front door. Front door. (Earlier Wooks). (;;); G4 Cabinet. (FESES DOOKS). (;;);	Quantity 1). Lef: sim to Heyco UB 1093. im to Caplug BPF-1/2. 2NCB CANINET by P65576X1. e BP-10A	097. 12 097. 16 20 21 22 23 24 25	17 18 19 20 21 22 23 24	NP106405 N210P2186 N403P2586 78A115141P2 N22P25015C5 N405P43C8 19822635061	Машеріаte. Нех nut: Ro. 1/4-20. Lockwasber, externul tooth: 1/4 inch.
1 194134014 194134014 194134015 1 196,130655 2 190320613 3 4 5 5491682?33 6 54916821 1 7 19633631662	2P1 Protective plug. (Quantif 4P6 Buybing, strain refler: 5P1 Protective plug: wim to (Quantify 4). 44 DNCB 5P1 Top. 3P1 Screan. (Not Used). (Not Used). KG3 Front door. Front door. Front door. KG5 Front door. K64 Cabinet. (FESES DOORS). (;;	Quantity 1). Lef: sim to Heyco UB 1093. im to Caplug BPF-1/2. 2NCB CANINET by P65576X1. e BP-10A	18 097. 16 20 27 27 23 24 25	18 19 20 21 22 23 24	N21092186 N40392386 28411514192 N2292501505 N40594308 19822635061	Иех лит: Ro. 1/4-20. Lockwasber, exfermal too(h: 1/4 ing),
14 1941340159 1 19013206589 2 1903206199 3 4 4 5 5 49168211 7 1963363666	496 Buyblog, strain reflet: 591 Protective plug: uim to (Quantity 4). 44 DRCB 581 Top. 391 Screan. (Not Used). (Not Used). 1 Rey. Yale and Towne P65. 1 Rey. Yale and Towne BP-16. KG3 Front door. (Equation (G4 Cabinet. (FESS DOORs). ()	Lef: sim to Hoyco UB 1093. im to Caplug BPF-1/2. INCE CAULNET DV F65574X1. e BP-10A	097. 16 20 21 22 23 24 24 25	19 20 21 22 23 24	N403P2586 78A115141P2 N22P25015C5 N405P43C8 19R22635061	Lockwasber, externul tooth: 1/4 inch.
I 19(3206589 2 1903206199 3 4 5 5491682733 6 54916821 I 7 19633636621 I	SP1 Protective plug: sim to (Quantity 4). 44 INCE 501 Top. 301 Screan. (Not Used) (Not Used). (Not Used). 1 Key. Yale and Towne BP-10 G3 Front door. Front door. (SG) Front door. (SE Dooks).	im to Caplug BPF-1/2. DACE CARINET DV F65576X1. e BP-10A	16 20 27 23 24 23	20 21 22 23 24	19411514192 N2292501606 N40594308 19822635061	
2 19U3206139 3 4 5491682133 6 549168211 7 19C33634563	(Quantity 4). 44 DACE - 501 Top. 301 Screpn. (Not Used) (Not Used). 101 New, Yale and Towne B0-10 303 Pront door. 303 Pront door. 303 Pront door. 303 Pront door. 303 Pront door. 304 Cabinet. (RESS DOOKS). 304 Cabinet. (RESS DOOKS).	DNCH CAULNET DV P65576X1. e BP-10A	2) 25 24 24 23	2) 22 23 24	R22P25015C6 R405P43C6 19R226350G1	Solderless terminal: wim to JLSCO \$L070.
2 19U3206139 3 4 5491682133 6 549168211 7 19C33634563	Sp1 Top. MP1 Scremm. (Not Used) [Not Used]). [S3 Lock. Yalkaabd Towny P65] I Key. Yale mund Towne BP-14 KG3 Front door. KG9 Front door. (S4 Cabinet. (FESS DOOKS). ()	Der F6557£X1. 2 BF-10A	25 23 24 25	22 23 24	R405P43C6 19822635061	
2 19U3206139 3 4 5491682133 6 549168211 7 19C33634563	Sp1 Top. MP1 Scremm. (Not Used) [Not Used]). [S3 Lock. Yalkaabd Towny P65] I Key. Yale mund Towne BP-14 KG3 Front door. KG9 Front door. (S4 Cabinet. (FESS DOOKS). ()	Der F6557£X1. 2 BF-10A	23	23 24	19822635061	Cap screw: No. 3/8-16 x 1.
2 19U3206139 3 4 5491682133 6 549168211 7 19C33634563	 3P1 Screan. (Not Used). (Not Used). R3 Lock. Yalkaand Towne P65. R4. Key. Yale mud Towne BP-14 R63 Front door. R65 Front door. (Earlier Kode R64 Cabinet. (FESS Dooks). (2) 	e BP-10A	24	24		Lockwasher: 3/8 inch-
3 4 5 5491682133 6 54916821 1 7 190336310363	(Not Used) (Not Used), 83 Lock: Yalkaand Towny P65; 84 Key, Yalkaand Towne BP-14 85 Front door. 85 Front door. (Earlier Wood 84 Cabinet. (FRESS DOORS). ()	e BP-10A	23		1982091032506	Outlet strip.
4 5 5491682?33 6 5491682!1 7 1903983%36	[Not Used]. 83 Lock. Yaliaand Towny P65. 1 Key. Yale mmd Towne BP-14 KG3 Front door. KG5 Front door. (KG5 Front door. (G4 Cabinet. (FESS DOORS). ()	e BP-10A		25		Tap screw: No./ 10-32 x 3/8. (Becures outlet strip).
5 5491682233 6 549168213 7 19033638083	 23 Lock. Yalkaand Towne P65; 1 Key. Yale mmd Towne BP-1; KG3 Front door. KG9 Front door. (Earlier Mod- iG9 Cabinet. (FERSS DOORS). (); 	e BP-10A			19C320942P1	Mounting bracket.
6 54916821 I 7 19033638383	I Key, Yale mind Towne BP-14 KG3 Front door. KG9 Front door. (Earlier Mode G4 Cabinet. (FRESS DOORS). ()	e BP-10A	nd 2)		1000000 Int	
7 19C3363(GiG	 Front door. Front door. (Earlier Kodd G4 Cablact. (ERES DOOKS). (1) 		nel 2)			
	iG9 Front door. (Earlier Mode G4 Cabinet, (RESS DOORs). ()	ur Kode):).	nd 2)			
1903207 (GiG	G4 Cabinet, (RESS DOORS), ()	r Kodel:).	nd 2)			
			.nd 2)			
8 1904172:06		(\$). (Invitude Liteman) and 2)				
9 19A1340 PP	in sap screw/ wowd, iu-is x h	16 x 3/4 (Quantity 52).	. I			
10 316086113.3						
11 19C3363(CG4						
19C3207 «G G	Gin Rear door, (MSarlacr Node)	Nodele .				
12 19A3340(PP)						
13 29A234DIP-Pf		Wantity 1).				
14 18A1340IP PI			93.			
	Pl Protective blue: etc. (A.C.	wantity D). ef: sich Lo system UR-1093. m to Coplug PPF-1/8.	93.		1	





*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES *COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES

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STATION CABINETS