

Maintenance Manual
GPS Simulcast Station GETC

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NOTICE

This manual covers Ericsson and General Electric products manufactured and sold by Ericsson Inc.

NOTICE

Repairs to this equipment should be made only by an authorized service technician or facility designated by the supplier. Any repairs, alterations or substitution of recommended parts made by the user to this equipment not approved by the manufacturer could void the user’s authority to operate the equipment in addition to the manufacturer’s warranty.

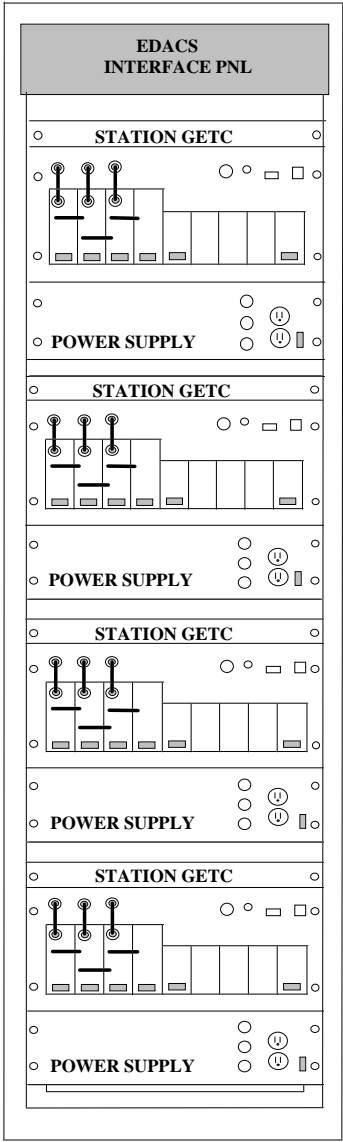
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DESCRIPTION

The Ericsson GPS Simulcast Station GETC (General Electric Trunking Card) is used in an Enhanced Digital Access Communication System (EDACS) to provide control and interfacing to the MASTR III station, site controller, dispatch console and other trunked stations at the same transmit site. The GETC shelf assembly consists of the GETC Logic Board, +5 volt Regulator Assembly, Turbo Board and GETC Interface Module. The shelf assembly is mounted above the station radio assembly and provides Control-Channel and Working Channel processing (Refer to figure).



MASTR III Station

GETC 19D901868G3 & G4

Logic Board 19D904266G1/G4

The GETC Logic Board contains all GETC functions except for the power supply. There is a Power-on/Manual reset for initializing the programmed code and hardware devices on the board. A clock drive provides clock signals to a microcomputer and RF data modem. The GETC logic board provides the station control and interfacing in the system (Refer to LBI-38894).

Regulator Assembly 19C336816G2

Generation of a regulated +5 volts is accomplished through the Regulator Assembly. This assembly gets 13.8 volts from the station power supply to provide the regulated +5 volts required to run the 9600 baud modem (Refer to Maintenance Manual LBI-38894).

TURBO BOARD 19D903536P1

The turbo Board provides additional processing power and memory for the Ericsson GETC. The combination of the Turbo Board installed in the GETC results in a configuration known as the GETC 1e (Refer to Maintenance Manual LBI-38822).

GETC INTERFACE MODULE ROA 117 2269 R1A

The GETC interface module is physically mounted in the GETC shelf assembly and provides signal level conversion (TTL to RS-422 and RS-422 to TTL), clock synchronization, bypass and remote control functions for those signals whose source or destination is the GETC (Refer to Maintenance Manual A/E/LZB 119 1659 R1A).

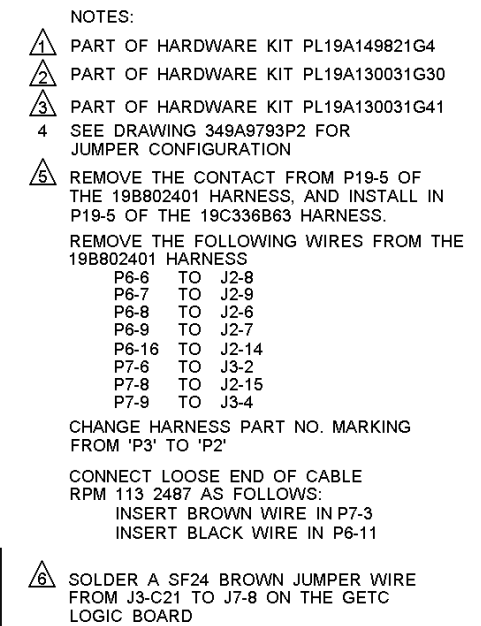
GETC CONFIGURATION

The information provided here is for Ericsson GETC configuration and includes an operational description and procedures for installing, upgrading and verifying the hardware and software installed in the GETC (Refer to Maintenance Manual LBI-38988).

GETC SURGE PROTECTOR ROA 117 2275 P1A

The GETC Surge Protector provides surge protection for all voltages and signals passing through the station GETC Interface module (Refer to Maintenance Manual AE/LZB 119 1660 R1A).





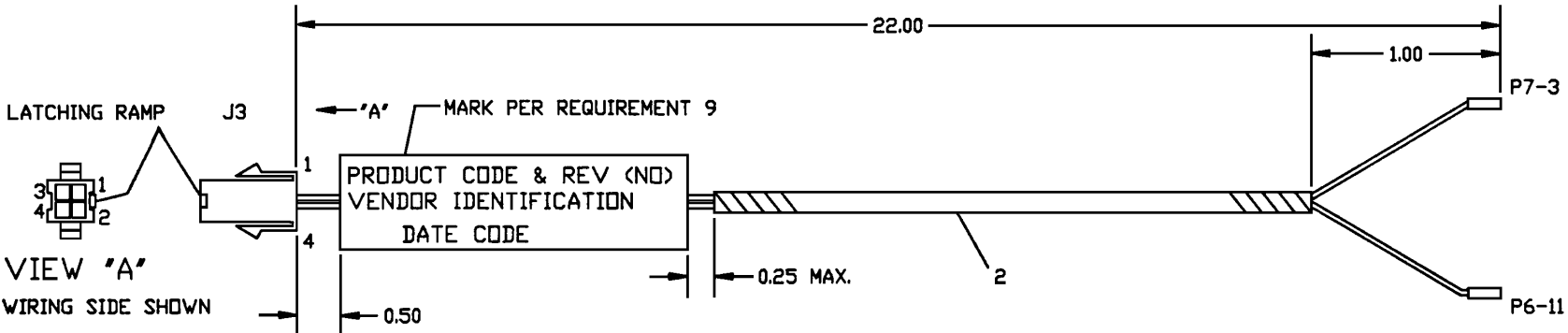
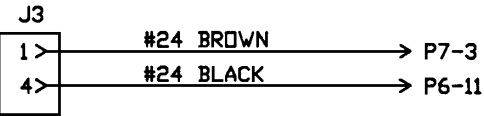


FIGURE 1

WIRING DIAGRAM



REQUIREMENTS

1. GENERAL
1.1 CABLE ASSEMBLY SHALL BE CONSTRUCTED AS SHOWN IN FIGURE 1.
1.2 LACE OR SPOT TIE AS REQUIRED TO MAINTAIN CABLE SHAPE AND DIMENSIONS.
1.3 ALL CONDUCTORS SHALL BE STRANDED COPPER UNLESS OTHERWISE SPECIFIED.
1.4 WIRE GAUGE AND COLOR SHALL BE AS SPECIFIED IN WIRING DIAGRAM OR CONNECTION LIST.
1.5 WIRING SHALL BE PER WIRING DIAGRAM OR CONNECTION LIST AND 100% INSPECTED.
1.6 ALL WIRE TERMINATIONS SHALL PROVIDE INSULATION SUPPORT

2. DESIGN

2.1 MATERIAL LIST				
ITEM	ERICSSON PART NO. (FOR REF. ONLY)	VENDOR PART NO. (OR EQUIVALENT)	DESCRIPTION	QTY
J3		AMP 172159-1	HOUSING	1
P7-3		MOLEX 08-55-0102	CONTACT	1
P6-11		MOLEX 08-55-0102	CONTACT	1
1		AMP 170361-3	FEMALE CONTACT FOR J3	2
2		PANDUIT T12F-C	SPIRAL WRAP	20 IN

- 2.2 PROTECTION: ASSEMBLED COMPONENTS SHALL MAINTAIN COMPONENT MANUFACTURERS SPECIFICATIONS.
2.3 UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES.
2.4 UNLESS OTHERWISE SPECIFIED, TOLERANCE: FOR ALL DIMENSIONS IS [+/-0.50]

3. LIMITING VALUES: RATED VOLTAGE FOR CABLE ASSEMBLY = 600 VAC MIN.

4. ENDURANCE

5. ENVIRONMENTAL RESISTANCE: OPERATING TEMPERATURE RANGE -20 TO +75 DEG. C
MAX CONTINUOUS TEMPERATURE +75 DEG. C

6. SOLDERABILITY

7. CLEANING LIQUID RESISTANCE

8. FIRE RESISTANCE

9. MARKING: EACH ASSEMBLY SHALL BE MARKED WITH THE FOLLOWING INFORMATION

ERICSSON PRODUCT CODE & PRODUCT REVISION MANUFACTURERS NAME OR TRADEMARK. DATE OF MANUFACTURE CODE
--

THE MARKING SHALL BE RESISTANT TO MECHANICAL WEARING THAT CAN ARISE AT NORMAL HANDLING, STORAGE AND OPERATION.

10. PACKING: THE PACKAGE SHALL BE MARKED WITH THE FOLLOWING INFORMATION:

ERICSSON PRODUCT CODE & PRODUCT REVISION MANUFACTURERS NAME OR TRADEMARK. DATE OF MANUFACTURE CODE
--

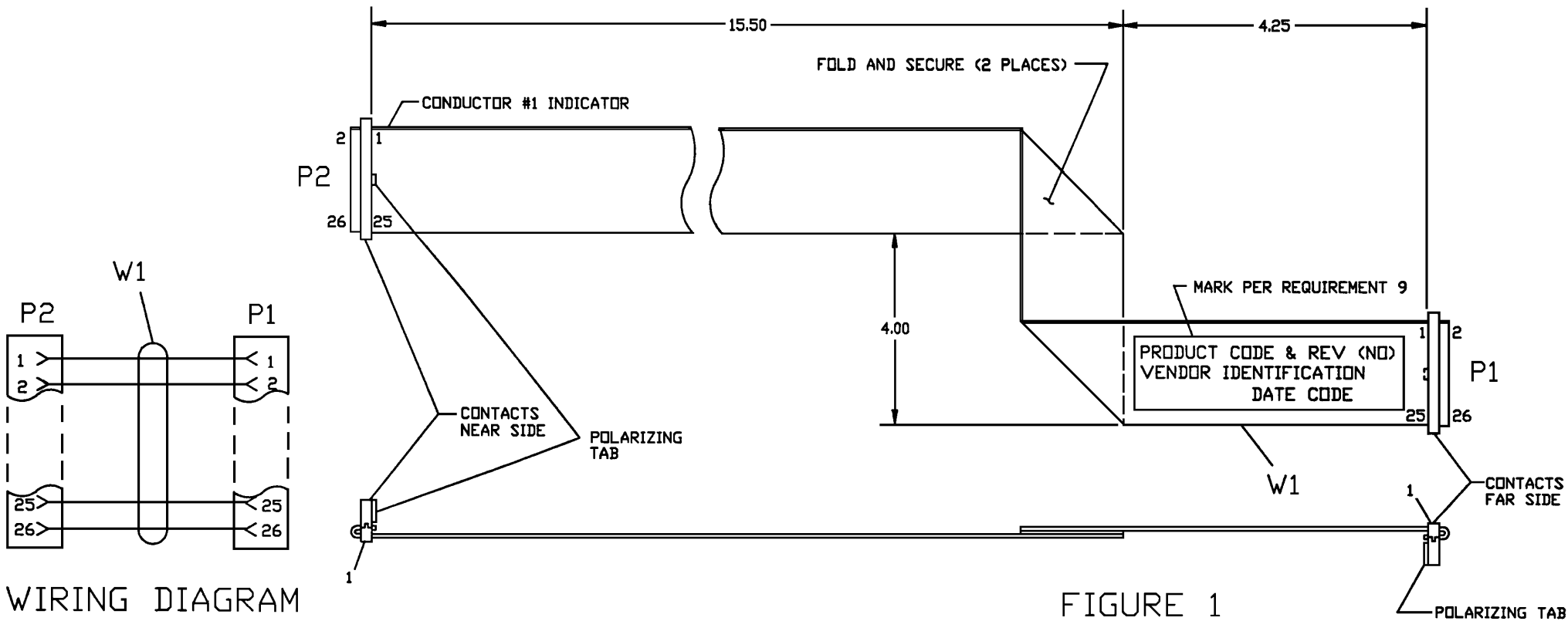
11. REFERENCES

12. INTERNAL INFORMATION

13. PRODUCT LIST

PRODUCT CODE PURCHASED	DESCRIPTION
RPM 113 2487	26 INCH GPS SIMULCAST DATA CABLE

STATION INPUT TO GETC CABLE RPM1132487



WIRING DIAGRAM

FIGURE 1

REQUIREMENTS

1. GENERAL
- 1.1 CABLE ASSEMBLY SHALL BE CONSTRUCTED AS SHOWN IN FIGURE 1.
 - 1.2 LACE OR SPOT TIE AS REQUIRED TO MAINTAIN CABLE SHAPE AND DIMENSIONS.
 - 1.3 ALL CONDUCTORS SHALL BE STRANDED COPPER UNLESS OTHERWISE SPECIFIED.
 - 1.4 WIRE GAUGE AND COLOR SHALL BE AS SPECIFIED IN WIRING DIAGRAM OR CONNECTION LIST.
 - 1.5 WIRING SHALL BE PER WIRING DIAGRAM OR CONNECTION LIST AND 100% INSPECTED.
 - 1.6 ALL WIRE TERMINATIONS SHALL PROVIDE INSULATION SUPPORT.

2. DESIGN

2.1. MATERIAL LIST

ITEM	ERICSSON PART NO. (FOR REF. ONLY)	VENDOR PART NO. (OR EQUIVALENT)	DESCRIPTION	QTY
P1		AMP 746288-6	26 PIN HEADER	1
P2		AMP 746288-6	26 PIN HEADER	1
W1		SPECTRA 135-2811-026	26 CONDUCTOR FLAT CABLE	27 IN
1		AMP 499252-3	STRAIN RELIEF (P1-P2)	2

- 2.2 PROTECTION ASSEMBLED COMPONENTS SHALL MAINTAIN COMPONENT MANUFACTURERS SPECIFICATIONS.
- 2.3 UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES.
- 2.4 UNLESS OTHERWISE SPECIFIED, TOLERANCE FOR ALL DIMENSIONS IS (+/-)0.50

3. LIMITING VALUES: RATED VOLTAGE FOR CABLE ASSEMBLY = 600 VAC MIN.

4. ENDURANCE

5. ENVIRONMENTAL RESISTANCE: OPERATING TEMPERATURE RANGE -20 TO +75 DEG. C
MAX CONTINUOUS TEMPERATURE +75 DEG. C

6. SOLDERABILITY

7. CLEANING LIQUID RESISTANCE

8. FIRE RESISTANCE

9. MARKING: EACH ASSEMBLY SHALL BE MARKED WITH THE FOLLOWING INFORMATION

ERICSSON PRODUCT CODE & PRODUCT REVISION MANUFACTURERS NAME OR TRADEMARK. DATE OF MANUFACTURE CODE
--

THE MARKING SHALL BE RESISTANT TO MECHANICAL WEARING THAT CAN ARISE AT NORMAL HANDLING, STORAGE AND OPERATION.

10. PACKING: THE PACKAGE SHALL BE MARKED WITH THE FOLLOWING INFORMATION:

ERICSSON PRODUCT CODE & PRODUCT REVISION MANUFACTURERS NAME OR TRADEMARK. DATE OF MANUFACTURE CODE
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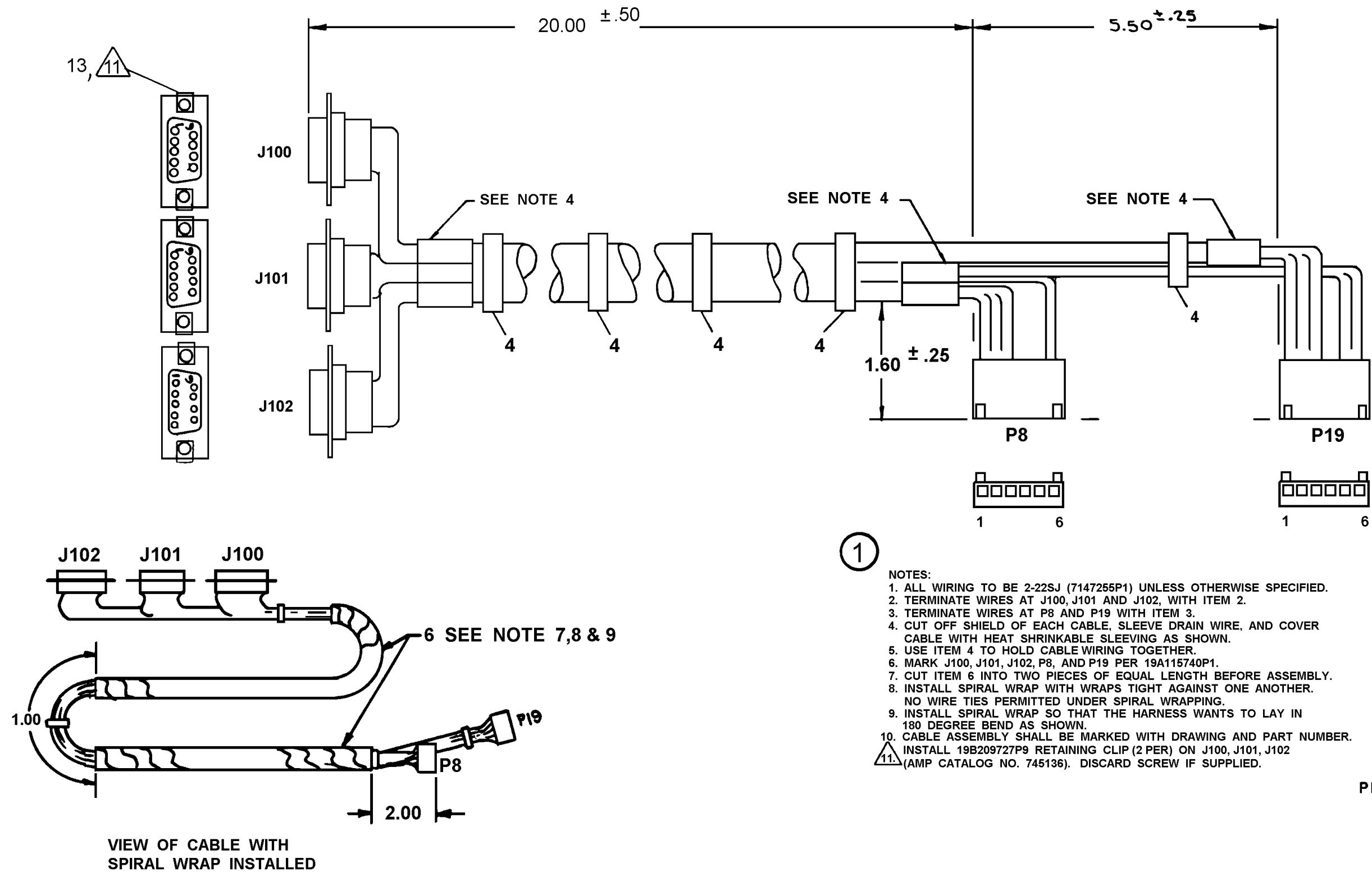
11. REFERENCES

12. INTERNAL INFORMATION

13. PRODUCT LIST

PRODUCT CODE PURCHASED	DESCRIPTION
RPM 113 2493	GPS SIMULCAST GETC INTERFACE CABLE

GETC PROTECTOR TO GETC INTERFACE CABLE RPM1132493



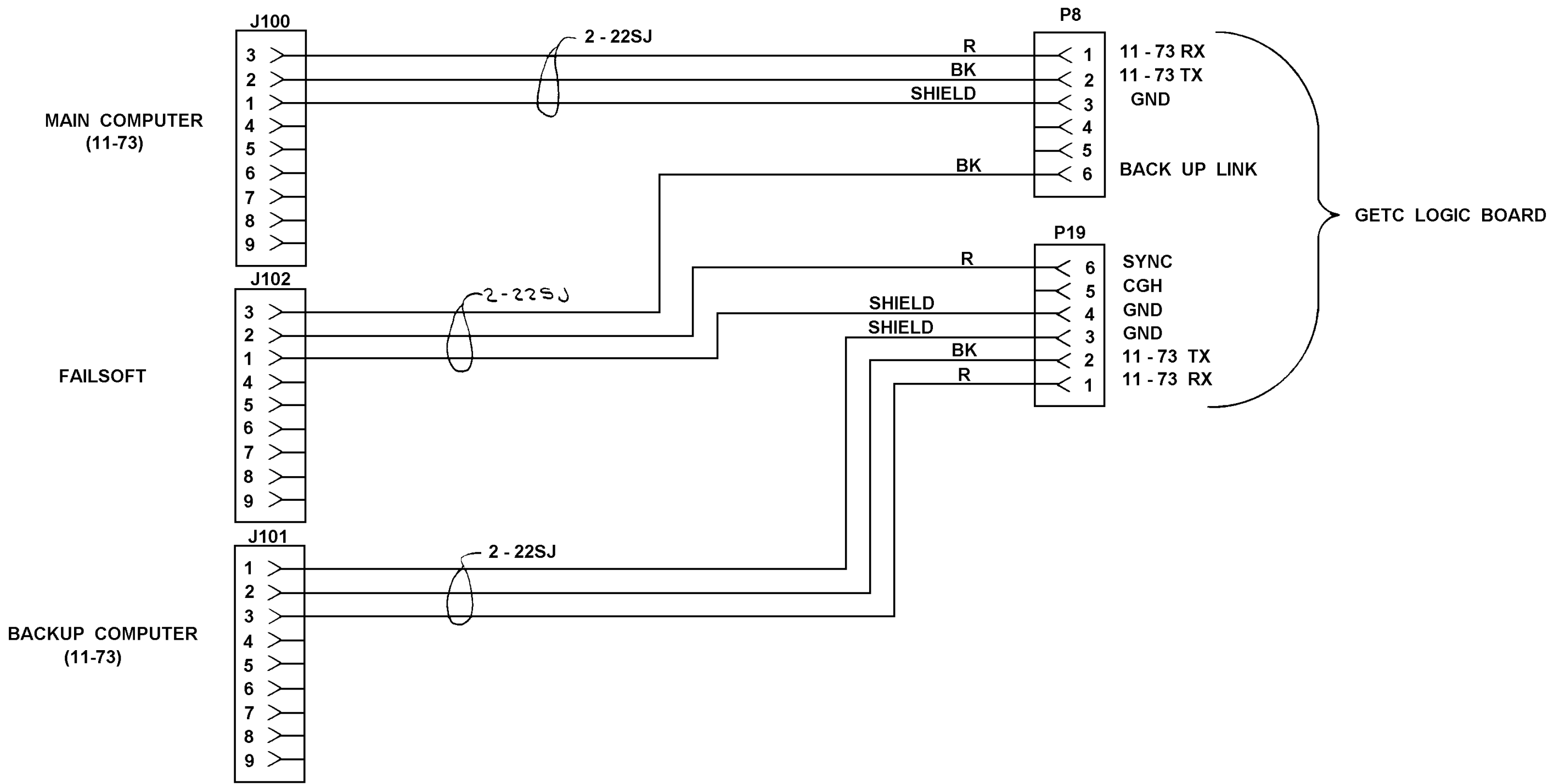
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- NOTES:
1. ALL WIRING TO BE 2-22SJ (7147255P1) UNLESS OTHERWISE SPECIFIED.
 2. TERMINATE WIRES AT J100, J101 AND J102, WITH ITEM 2.
 3. TERMINATE WIRES AT P8 AND P19 WITH ITEM 3.
 4. CUT OFF SHIELD OF EACH CABLE, SLEEVE DRAIN WIRE, AND COVER CABLE WITH HEAT SHRINKABLE SLEEVING AS SHOWN.
 5. USE ITEM 4 TO HOLD CABLE WIRING TOGETHER.
 6. MARK J100, J101, J102, P8, AND P19 PER 19A115740P1.
 7. CUT ITEM 6 INTO TWO PIECES OF EQUAL LENGTH BEFORE ASSEMBLY.
 8. INSTALL SPIRAL WRAP WITH WRAPS TIGHT AGAINST ONE ANOTHER. NO WIRE TIES PERMITTED UNDER SPIRAL WRAPPING.
 9. INSTALL SPIRAL WRAP SO THAT THE HARNESS WANTS TO LAY IN 180 DEGREE BEND AS SHOWN.
 10. CABLE ASSEMBLY SHALL BE MARKED WITH DRAWING AND PART NUMBER.
 11. INSTALL 19B209727P9 RETAINING CLIP (2 PER) ON J100, J101, J102 (AMP CATALOG NO. 745136). DISCARD SCREW IF SUPPLIED.

PL ISSUED

8 SAME AS PART 1 EXCEPT, DELETE J101 & 2-22 SJ WIRE TO P19.

GETC CABLE 19C336863P1 ASSEMBLY DIAGRAM



GETC CABLE 19C336863P1 WIRING DIAGRAM

(19C336866, Sh. 1, Rev. 0)

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