

## Chapter 5: Maintenance Information

### Introduction to Chapter 5

Chapter 5 provides the technical personnel with the information necessary to diagnose and repair (by replacement) a fault on the μLink System.

Recommissioning information for the μLink is also provided to ensure that the system is functioning correctly after repair or replacement of the LRU/SRU.

### Fault Diagnosis

To ensure the minimum down-time of the μLink System, fault diagnosis is divided into two distinct categories:

- Diagnosing the most likely faulty site (Near or Far).
- Diagnosing the faulty LRU at the site, ie. Indoor Unit, Outdoor Unit, Antenna or Interconnection Cable.

Information to follow



## Chapter 6: Functional Description

### Introduction to Chapter 6

Chapter 6 provides a detailed description of the μLink System as well as a brief description of the Line Replaceable Units (LRUs) comprising the system. This chapter is aimed at providing the service technician with an understanding of the function and operation of the μLink System.

### μLink System Description

The μLink System is a Direct Sequence Spread Spectrum Digital Radio operating in the 2.4 GHz ISM frequency band. Various payload data interfaces can be installed, ie. T1 and E1. The μLink system can be extended to include other frequency bands merely by using a different microwave transceiver in the Outdoor Unit (OU). The Indoor Unit (IU) is not dependent on the frequency band used.

A μLink Radio Relay Station comprises a single IU, an OU (with antenna), interconnected by a custom cable. On-site management and maintenance is achieved by using a Craft Terminal that interfaces to the IU.

A radio relay link consists of a complementary pair of μLink stations. It is possible to extend range by linking further station pairs in a multiple hop configuration.

The following options (future upgrade) may be added to a μLink Digital Radio System:

- Local area network for networking of multiple radio relay stations.
- IP routers, bridges, and gateways for networking to the Telecommunications Network Management (TNM) system.

# Chapter 7: Parts List

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## Introduction to Chapter 7

Chapter 7 identifies, lists and describes all system level user replaceable parts and components comprising the μLink System. Part numbers for re-ordering purposes are also provided.

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## Parts Lists

The columns in the parts lists provide the following information:

- Item: Indicates the annotation number referenced in the associated parts list illustration in Figure 25.
- Part No.: Gives the Tellumat part number for the specific item.
- Description: Provides a brief description of the item.
- Qty. States the quantity of the item used per Indoor Unit.
- Remarks: Provides any useful supplementary information.

Figure 25 shows the user replaceable parts and components at the system level. Table 8 shows the actual parts list.

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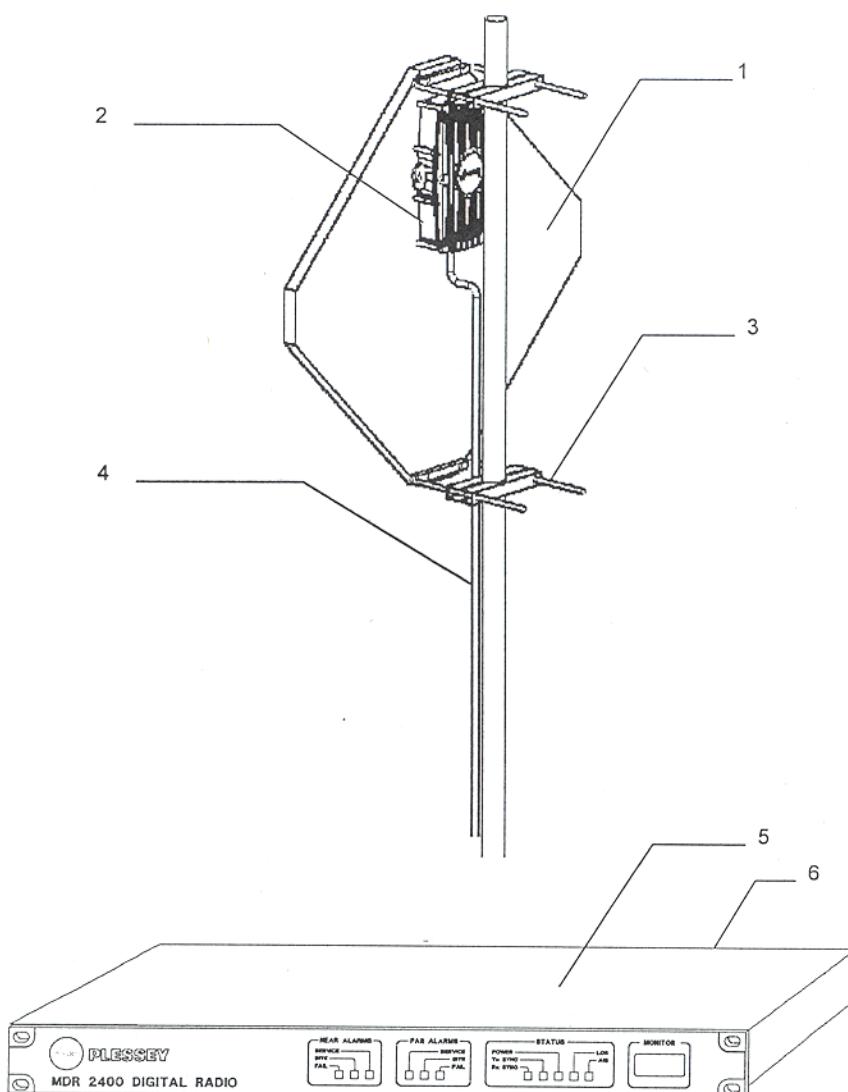


Figure 25. μLink System.

Table 8. μLink System Level Parts List

Item	Part Number	Description	Qty.	Remarks
1	651-03531	Antenna (18dBi Tx/18dBi Rx gain)	1	
2	651-03586	Outdoor Unit (E1 HB)	1	See Note 1
2	651-03587	Outdoor Unit (E1 LB)	1	See Note 1
2	651-03592	Outdoor Unit (T1 HB)	1	See Note 1
2	651-03593	Outdoor Unit (T1 LB)	1	See Note 1
2	651-03584	Outdoor Unit (E1 Duplexer HB)	1	See Note 1
2	651-03585	Outdoor Unit (E1 Duplexer LB)	1	See Note 1
2	651-03590	Outdoor Unit (T1 Duplexer HB)	1	See Note 1
2	651-03591	Outdoor Unit (T1 Duplexer LB)	1	See Note 1
3	651-03594	Antenna Mounting Bracket Set	1	
4	660-03152	IU/OU Interconnection Cable (10m)	1	
4	660-03531	IU/OU Interconnection Cable (20m)	1	
4	660-03150	IU/OU Interconnection Cable (50m)	1	
4	660-03149	IU/OU Interconnection Cable (75m)	1	
5	651-03533	Indoor Unit		
6	651-03526	E1 Interface Card		See Note 2
6	651-03527	T1 Interface Card		See Note 2

Note 1: Check that Outdoor Units are ordered as a matched pair and ensure that they are of a complimentary type, ie. low band (LB) or high band (HB) types at opposite ends of the link.

Note 2: Only one interface card (E1 OR T1) is installed in the Indoor Unit.