MT-Alarm Quick Reference Guide

Parker

MICRO THERMO
TECHNOLOGIES

## Table of Contents

1 Preface

1.1 Using this manual

This manual is intended for refrigeration technicians installing the refrigeration monitoring system. It requires a knowledge of the basic tools in the MT Alliance system. For example, the technician must know how to use the MT Alliance software (menu, views, toolbars, etc.), use a plug-in and setup various items. For full details, the technician should refer to ***MT Alliance - User Interface Manual*** and ***MT Alliance - Basic Installation Manual***.

The MT-Alarm node is a new card used for sending an alarm signal introduced in ver 3.0. The previous hardware is not compatible with the new software for direct replacement. Nevertheless the old hardware is still supported by this MT Alliance version. If you are upgrading the hard ware from the MT-334X and MT-2338 cards **do not** click on **Replace** you must delete the node and start the node installation over with the new MT-336X.

1.2 Conventions used in this manual

For your convenience, several screen captures have been added to describe the procedures. Some images contain text balloons to help illustrate the procedure.

You will also come across certain terms in **bold** to better understand the text. When you see an X in a part number it can be replaced with any character. For example if you see MT-336X it mean that all items having a part number starting with MT-336 are applicable.
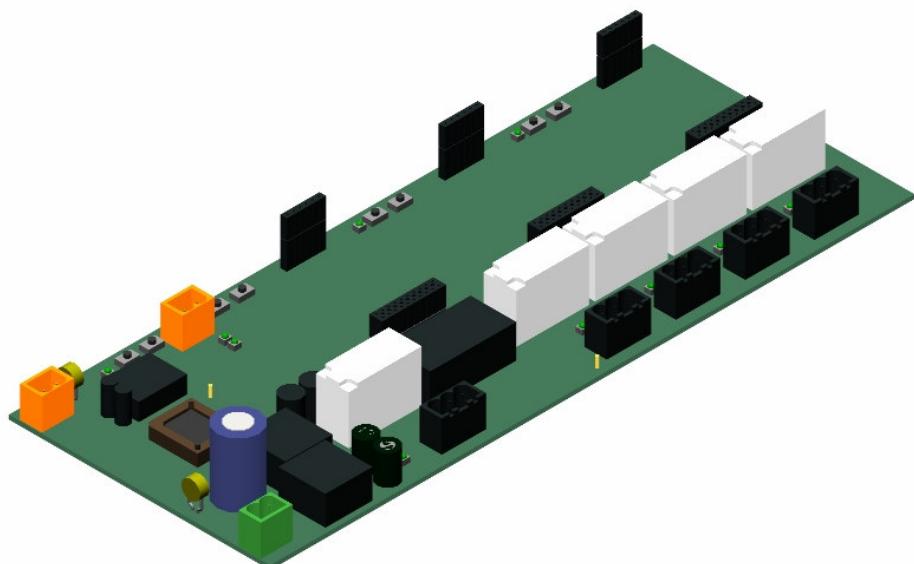
2   MT-Alarm Node Description

The alarm node has 5 functions.
- **1- An alarm board with 4 alarm relays.**
- **2- A PC watchdog with one watchdog relay.**

The MT-Alarm node also serves as a base for three of the following optional control module:
- **3-One Real Time Clock node (RTC) standard on a MT336B**
- **4-One or more HVAC Scheduler**
- **5-One or more Lighting Scheduler**

In its simplest form, the purpose of the "alarm relay node" is to activate a relay when an "alarm message" is received from an "alarm source" in the system. When the "alarm source" is acknowledged, it sends a "return to normal" message to the "alarm relay node" which deactivates the relay.
It is only used as a base and power source for the RTC and Scheduler node.

3   Physical Installation

3.1   Power

The MT-Alarm node requires 16VAC to 24VAC. With a 32V centre tap (CT) transformer, using one of the phases and the CT will give 16VAC. **The alarm node must not be powered with the full 32VAC.** The MT-Alarm board with 3 control modules 950-3968 will require 10VA.

There are indicator leds for the 12V and the 5V. The 12V is used for the relays. The 5V powers the on-board microprocessor as well as the plug-in modules. A fault on the MT-Alarm board could affect all the plug-in modules.

3.2   Data

There are two data connectors. On a BUS topology you must bring the data into the board with one connector and exit from the other.

3.3   EE Blank

There is a built-in EEBlank. Should the alarm node be corrupted during the software download, and require "blanking", short JP1 and reset the board. You should see the service led blink rapidly for a few seconds. Wait until the service led stop blinking. Remove the short and reset the board once more. Normal operation should be reestablished. This is not applicable for the plug-in modules.

Power 16VAC to 24VAC

DO NOT
USE 32VAC

950-336A

Data In

JP1 EEBlank Jumper

Service Button for Alarm Node

Reset Button for Alarm Node

Data Out

PC Watchdog

NC
COM
NO

Watchdog Relay

RTC chip with Internal Battery

950-3968

Install RTC in

Position A

Service Button for RTC

Reset Button for RTC

Alarm Actuator 1

NC1
COM1
NO1

Relay 1

950-3968

Install Scheduler 1 in

Position B

Service Button for Scheduler 1

Reset Button for Scheduler 1

Alarm Actuator 2

NC2
COM2
NO2

Relay 2

Alarm Actuator 3

NC3
COM3
NO3

Relay 3

950-3968

Install Scheduler 2 in

Position C

Service Button for Scheduler 2

Reset Button for Scheduler 2

Alarm Actuator 4

NC4
COM4
NO4

Relay 4

4 Alliance Installation

If you are upgrading the hardware from the MT-334X and MT-2338 cards **do not** click on **Replace** you must delete those nodes and start the node installation over with the new MT-336X and MT-3968.

The alarm Node and the RTC Node should be the two first nodes to be dropped in a site. It avoids long waiting for the connection to all other node to be completed. However they don't need to be installed right away.

The Alarm board contains 4 service buttons, 4 reset buttons and 4 service leds. They can be distinguished by the suffix (A, B and C or none for the base). Each of the 4 sections has to be installed separately as though they were individual nodes.

When dropping the **alarm node**, make the following selections:

Be sure to choose the new software
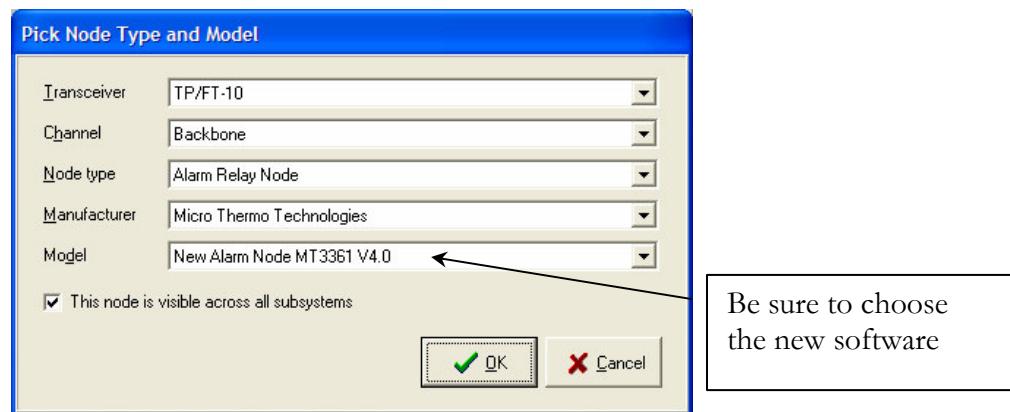
Click on the Alarm node icon and on the Commands/Status tab then on Install. Be sure to press the appropriate service button.
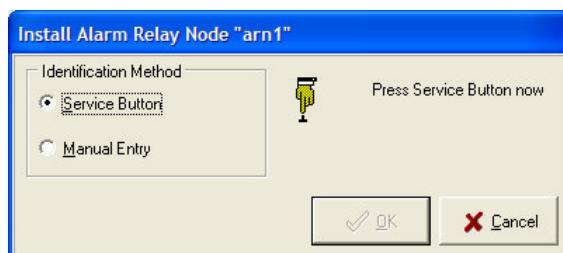
When dropping an **alarm relay**, make the following selections:

Select **Primary Type**

And check "**This alarm relay is visible across all subsystems**"
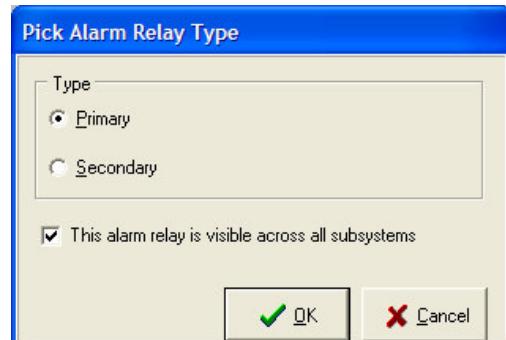
Click on the Alarm relay icon and on the Details tab
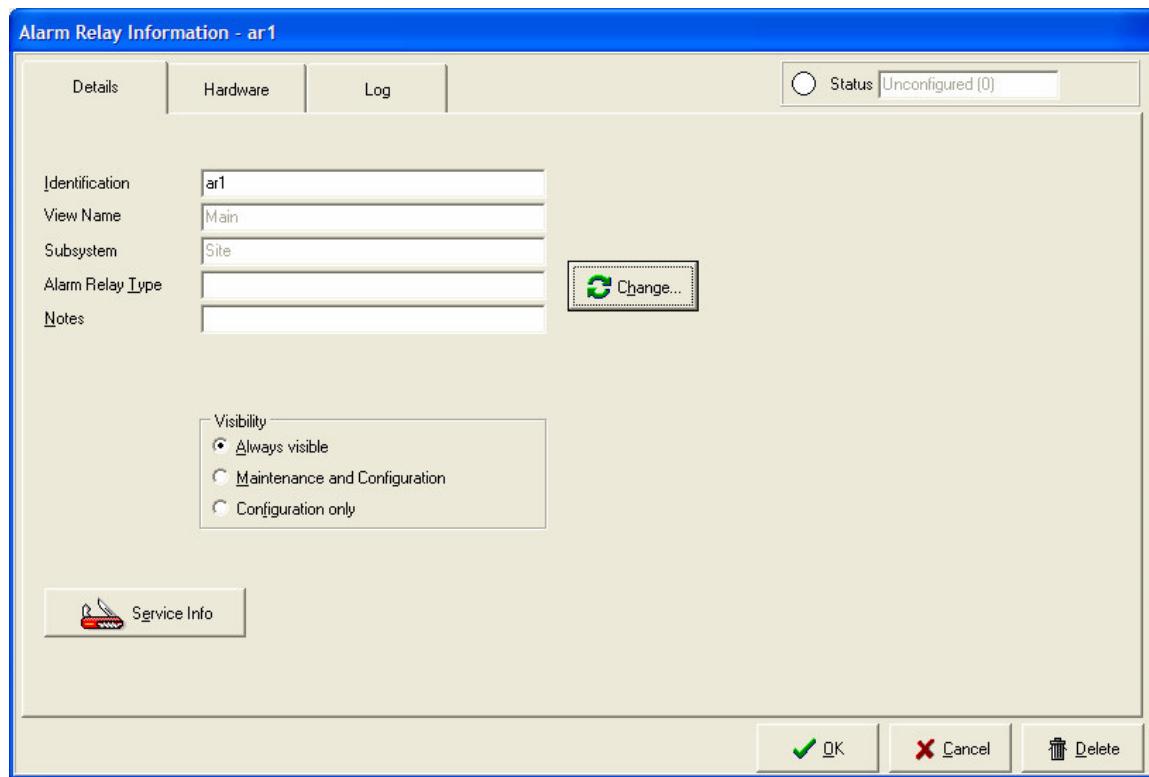
You can change the Identification for a more explicite name like « Refrig » or « LowTemp »

You can change the icon picture when you click on the Change button
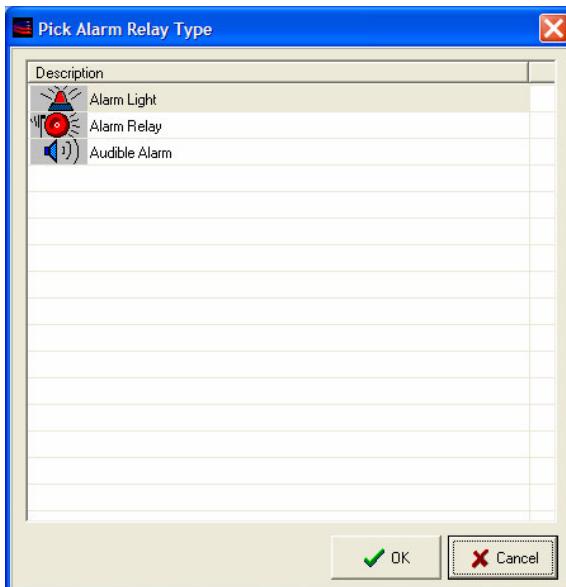
Click on the Hardware tab to continue

Select the node and output on which you wish to attach the alarm relay and the desired alarm parameters.
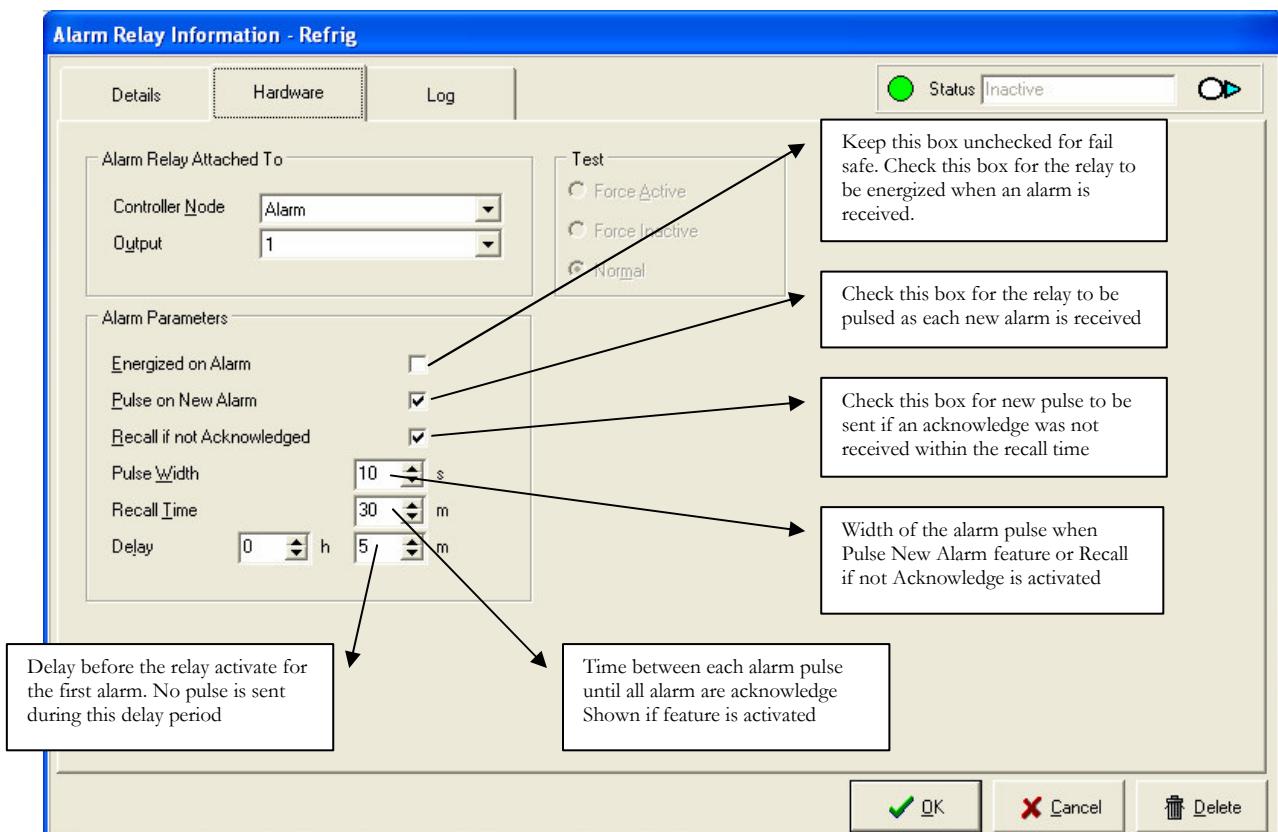
Each Alarm relay has his individual property so they can be set differently.

Example of Delayed Alarm, Recall and Pulse on New Alarm Feature
With these feature checked, each recall and new alarm are signalled by energising the alarm relay for a period equivalent to the pulse width field (10 seconds in our example). At the end of this period, the alarm relay is de-energised. This example assumes that the relay is de-energised on alarm.
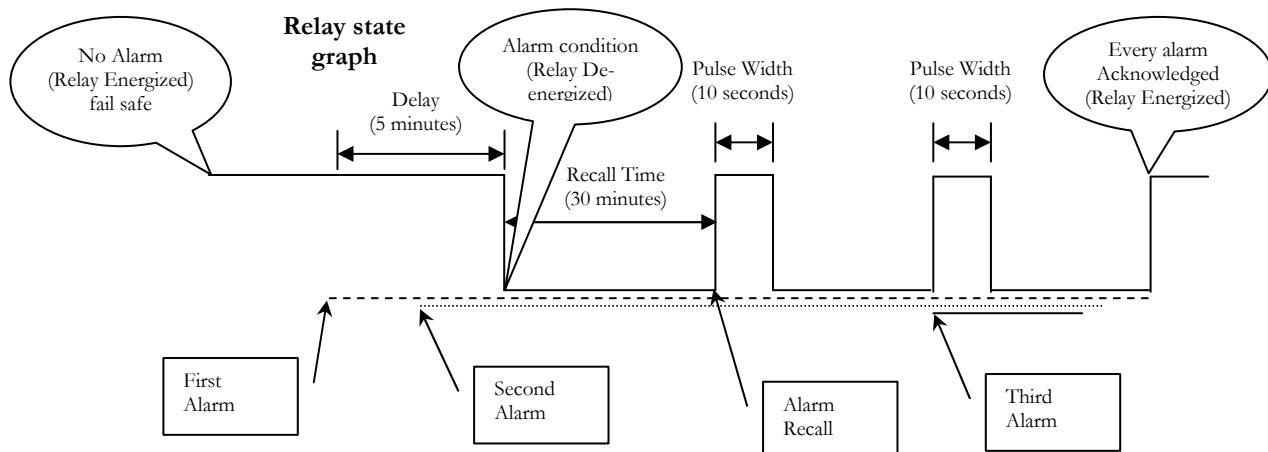
5 Installing Control Module

5.1 Real Time Clock (RTC)

As it is recomended for the Alarm Node, the RTC Node should be one of the two first nodes to be dropped in a site. It avoids long waiting for the connection to all other node to be completed. However it doesn't need to be installed right away.

The expected battery life is 10 years The RTC chip and battery come in a sealed package. The battery alone can not be changed. When a RTC is required, a control module (MT-3968) must be present in location A of the MT-Alarm node. When installing the RTC, be sure to use ServiceA button. Refer on section 3 for the diagram and more explanation.
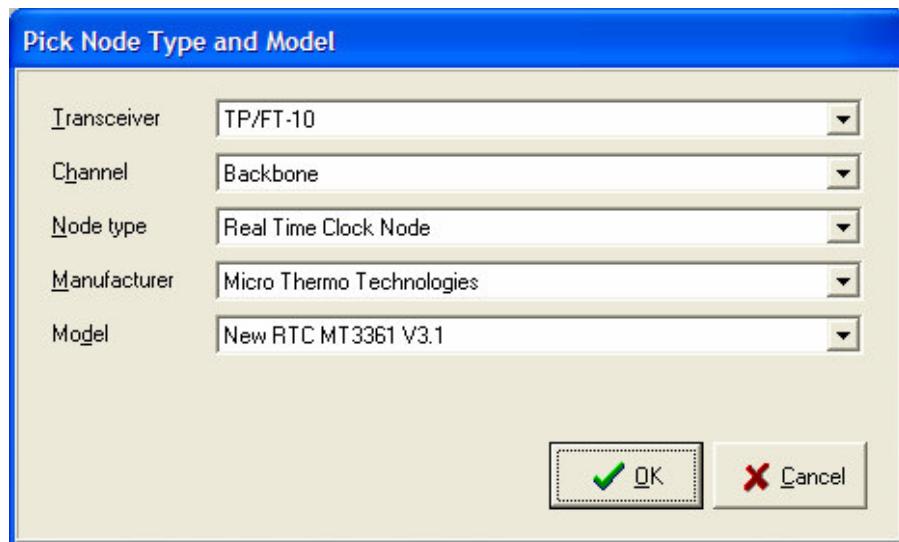

Note: This software is not compatible with the MT3341 RTC node. The old software may be necessary when upgrading the software while keeping the same old hardware on a site. Should you use the wrong software/hardware combination, the *Battery Needs Service* message will appear shortly after the node comes on line. To correct the situation, delete the node, drop a new one and select the appropriate model.

5.2 Schedulers

Up to 2 schedulers may be added. They must be installed in locations B and C. Any combination of HVAC or lighting scheduler may be used. Be sure to press the appropriate service button.

The HVAC Scheduler can be dropped only in the HVAC subsystem
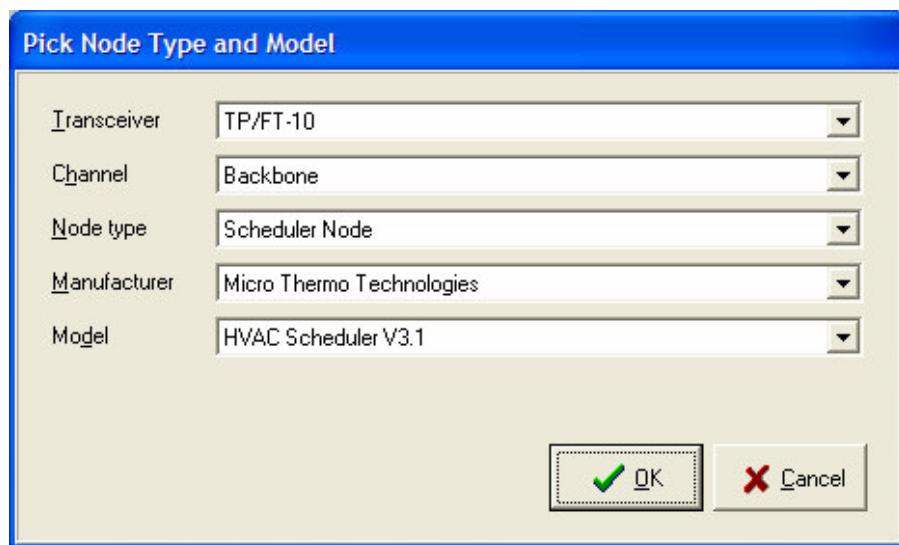
The Lighting Scheduler can be dropped only in the Lighting subsystem
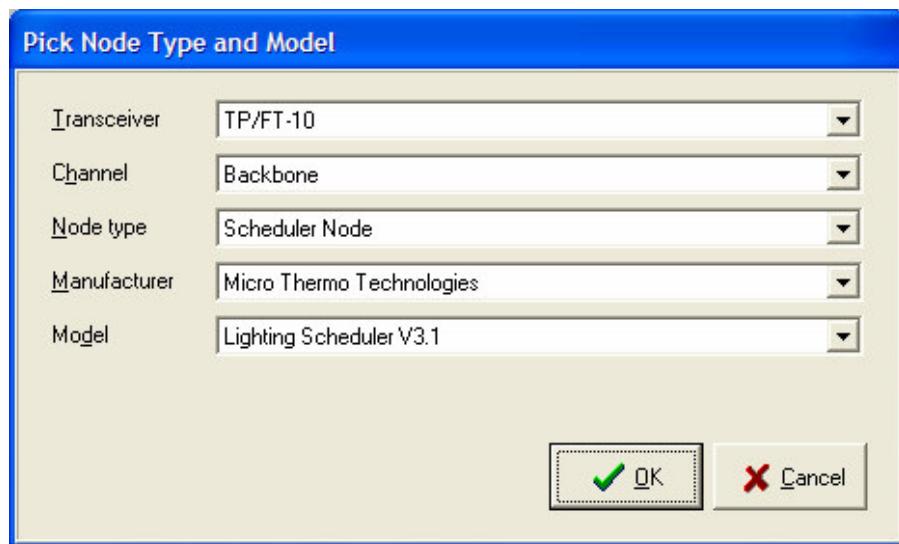
If you need more Scheduler you can use another MT-Alarm card. This MT-Alarm card with three control module on it can be used as four extra scheduler.

Revision History

REV	Description	Révisé Par	Date
1.0	English Document Creation	JR	30-Oct-01
2.0	English Update for MTA V3.0	RL	04-Dec-03
3.0	English Update for MTA V4.0	RL	26-Feb-04
3.1	English Update for MTA V4.0	RL	28-Apr-04
3.2	English Update for MTA V4.1	RL	30-Apr-04
3.3	Header and footer modifications + Ready for revision	RL, JG	11-May-04