

SATCHWELL MICRONET TOUCH SCREEN DISPLAY

Order Types: see Specification table on Page 2.

The MicroNet Touch Screen Displays allow a user to monitor and configure parameters for multiple controllers on a LONWORKS FTT-10 Free Topology network, Native Communications Protocol (NCP) network or an ARCNET® communications network.

The Touch Screen features continuous alarm polling and data passing to all connected controllers on a network or sub-network. The VisiSat Configuration Tool is used to configure the Touch Screen for parameter monitoring and alarm functions.

A Touch Screen can be mounted directly to the MN550 and MN650 controller when used on an NCP network. Other Touch Screen models can be mounted to a control panel and connected to a controller or connected directly to a compatible network.

The Touch Screen features a built-in Real Time Clock (powered separately by a Lithium battery) that can be configured to be a master timekeeper for a network.

The touch-sensitive keypad works easily with the screen's intuitive graphic representation of common control parameters. The display shows the user 16 menu items each of which gives access to 16 separate controller parameters (8 for the LON Touch Screen).



FEATURES

- LONWORKS, NCP and ARCNET Communications Options
 - Back-lighted graphic LCD Interface
 - Wall Mounting Kit available
 - Easy direct mounting to MN550 and MN650 controllers used on an NCP network
 - Intuitive, graphics-based menu system
 - Battery backed up, built-in Real Time Clock
 - Secure password protection
 - Can be connected directly to a network
 - Screen configuration is saved on EEPROM, providing parameter protection from power cuts
 - Connection to MicroNet View, TAC Xenta 555 web server and optionally, TAC Vista.
- LON® Touch Screens feature:
 - Built-in scheduling
 - SNVT value manipulation using 'Bubbleland'
 - A unique device for visualization of virtually any FTT-10 LON product that uses SNVTs
 - 30 input SNVTs and 20 output SNVTs per Touch Screen, with SNVT visualization
 - SNVT configuration via 'Bubbleland'
 - Visualization of controller data and objects via explicit messaging.



Data Sheets

DS 10.050A - Wiring and Commissioning Information
 DS 10.153 - MN550 Controllers
 DS 10.154 - MN650 Controllers
 DS 10.201 - MicroNet View Software
 DS 10.202 - VisiSat Configuration Tool
 DS 10.217 - MicroNet Manager Interface & ARCNET Router

Multi-Lingual Instructions

MLI 10.050 - MN Touch Installation Instructions
 MLI 10.310 - MN DK Installation Instructions



SPECIFICATION

Order Type	Description	Communications Protocol	Direct Controller Mounting
MN50-TS-NCP	MicroNet NCP Touch Screen Display (Wall or controller Mounting*)	NCP	Yes
MN50-TSP-NCP	MicroNet NCP Touch Screen Display (Panel Mounting)		No
MN50-TS-ARC	MicroNet ARCNET Touch Screen Display (Wall Mounting*)	ARCNET	No
MN50-TSP-ARC	MicroNet ARCNET Touch Screen Display (Panel Mounting)		
MNL-TS-100	MicroNet LONWORKS Touch Screen Display (Wall Mounting*)	LONWORKS	
MNL-TSP-100	MicroNet LONWORKS Touch Screen Display (Panel Mounting)		

*MN-DK is required for wall mounting.

HARDWARE SPECIFICATIONS

Dimensions:	244mm width x 108mm height x approx. 43mm depth
Enclosure:	Moulded polycarbonate plastic case. Fire resistant to UL94 VO. Wall Mounted = IP 20 Panel Mounted = IP 40
Communications Ports:	2 Serial RS 485 ports.
Power Supply Input:	24Vac, powered from the host unit (either MN550 or MN650 series controller) or by direct 24Vac wiring. Real Time Clock has Lithium battery (350 days life at continuous discharge).
Maximum Power Consumption:	MN50-TS-NCP: 5VA MN50-TS-ARC: 6.5VA MNL-TS-100: 8VA
EMC Compliance:	EN50081-1 (Emissions) EN50082-1 (Immunity)
Agency Listing:	UL Listed: UL916 UL Listed to Canadian Safety Standards
Compliance:	FCC Class A and CE Compliant
Wiring Terminals:	Eight (8) Plug-in Screw Terminals (Panel Mounting) Accepts max. conductor size Ø1mm (18 AWG)
Mounting:	Direct to controller, panel-mounted or wall mounted using MN-DK (see MLI 10.050 and MLI 10.310).
Ambient Limits:	Operating Temperature: 0 to 40°C Shipping and Storage Temperature: -20 to 55°C Humidity: 0 to 95%rh, non-condensing.
Timekeeper	User can enable/disable Touch Screen as the master time clock. When enabled as such, the Touch Screen broadcasts a time update every 10 minutes or whenever the time is reset.

SOFTWARE SPECIFICATIONS

The MicroNet Touch Screen displays and allows configuration of controller parameters. The table below lists some of these parameters and details their use.

MicroNet Touch Screen Menu Options

Menu Option	Details
Change an Analogue Value	User can increase or decrease the parameter values within a specified range.
Change Digital Parameters	User can choose ON, OFF, or NONE (Auto) for the chosen parameter.
Change/Set a Time Schedule	Date, hour, and minutes are selectable by the user.
Change/Set a Holiday Schedule	Start/end holiday, date is selectable by the user.
View an Optimiser Histogram/Log	User can view a histogram (graph) and log of start times for optimiser mode.
Review Alarms	User can see all parameters with alarm attributes attached.
Acknowledge Alarms	User can view and acknowledge alarms.
View Logging Graph Trends	User can specify and view logged trend data in a graph.
Timekeeper	User can enable/disable Touch Screen as the master time clock. When enabled as such, the Touch Screen broadcasts a time update every 10 minutes or whenever the time is reset.

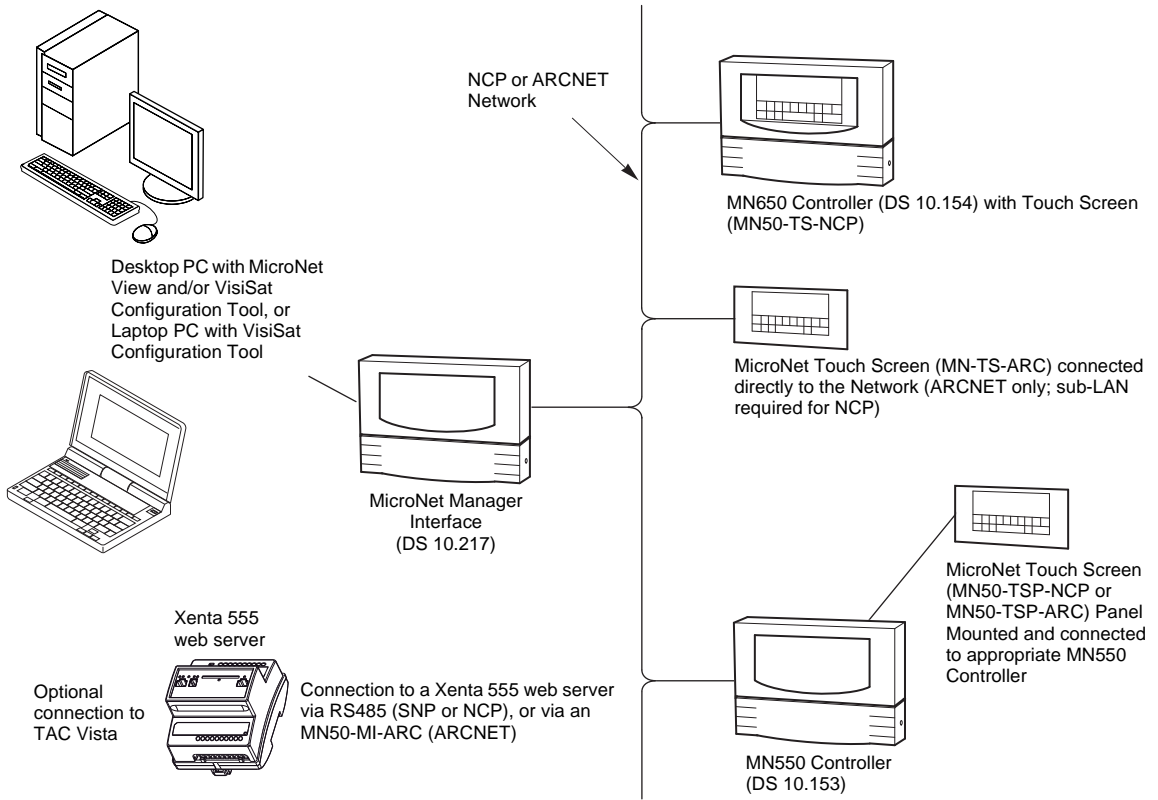
ACCESSORIES

LON-TERM 1	Single LON Terminator for free topologies
LON-TERM 2	Double LON Terminator for BUS topologies (2 required)
MN-DK	Display Wall Mounting Kit for Touch Screen, available for MN50-TS-NCP and MN50-TS-ARC
MN50-MI-NCP & MN50-MI-ARC	MicroNet Manager Interface for NCP and ARCNET networks
Echelon® ECH 74501	PCLTA21/FT-10 PCI card to connect Desktop PC to LONWORKS FTT-10 network
Echelon® ECH 73200	PCC-10 TP/FT-10 card to connect Laptop PC to LONWORKS FTT-10 network

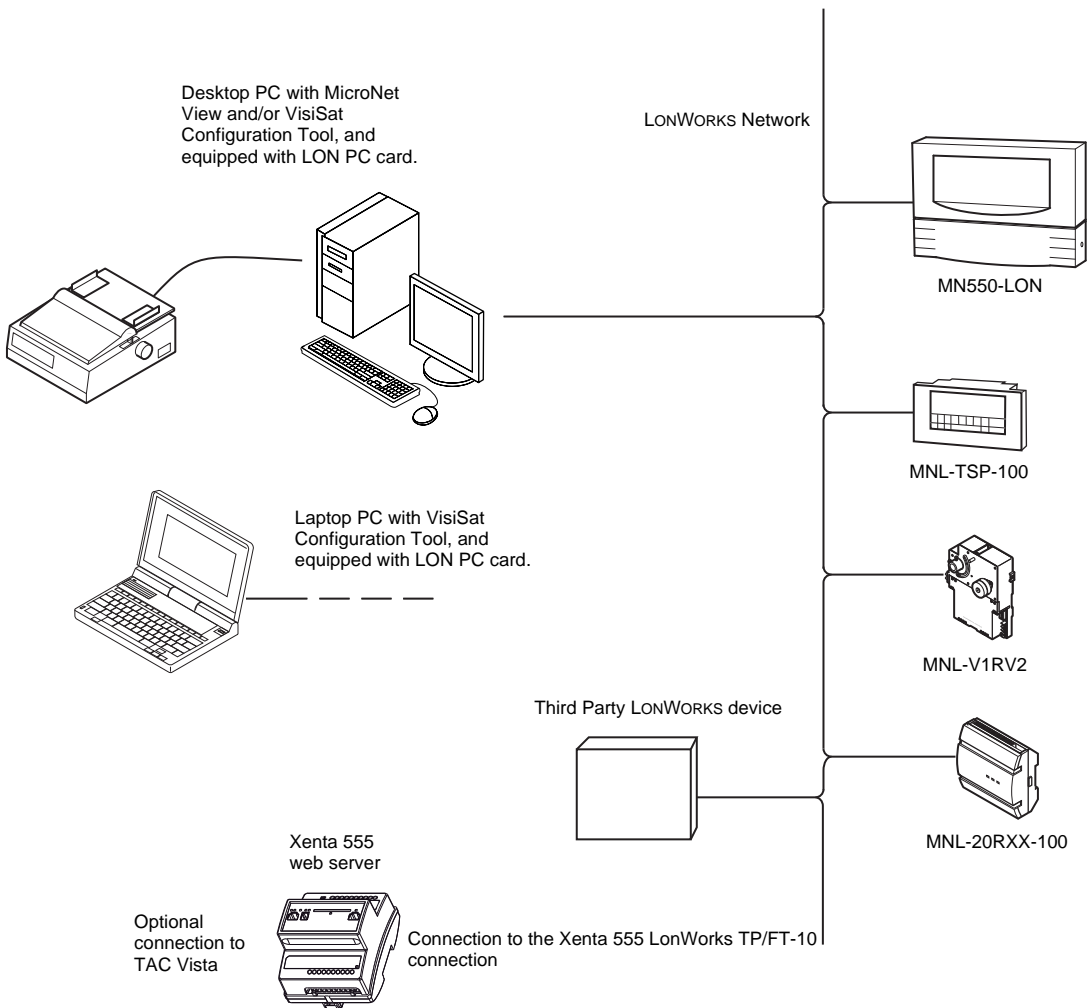
The Timekeeper facility is redundant on the MNL-TS-100 and MNL-TSP-100 models. Time updates are sent to the LON daughter board automatically.

TYPICAL SYSTEM DIAGRAM

MICRONET TOUCH SCREEN DISPLAY (NCP OR ARCNET)



MICRONET TOUCH SCREEN DISPLAY (LonWorks)



COMMUNICATIONS

NCP (Native Communications Protocol) Controllers on an NCP network connect to MicroNet View and the VisiSat Configuration Tool via the MN50-MI-NCP. An NCP network can host up to 20 sub-networks with 63 devices, each communicating in a polled-response fashion. NCP (or SNP) controllers can also connect to a Xenta 555 web server via RS485. An NCP network has a communications speed of 9.6k baud.

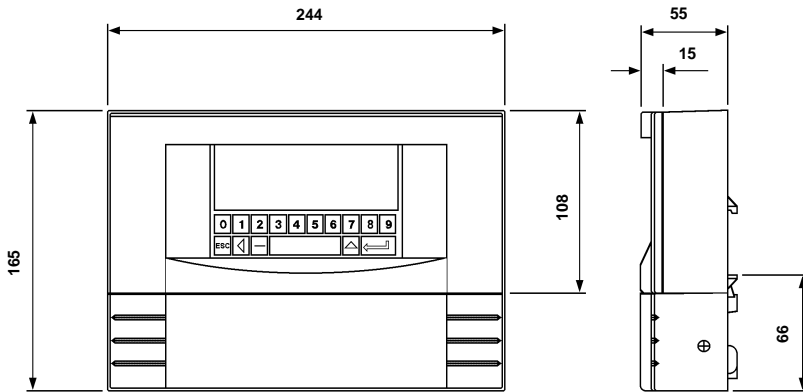
ARCNET Controllers on an ARCNET network connect to the MicroNet View software via an MN50-MI-ARC only and to the VisiSat Configuration Tool software via an MN50-MI-ARC or an ARCNET PC card. An ARCNET network provides high-performance peer-to-peer communications and can host up to 94 devices (plus the MN50-MI-ARC). ARCNET controllers can also connect to the Xenta 555 web server via an MN50-MI-ARC. An ARCNET network has a communications speed of 156k baud.

Additionally, up to 31 sub-LANs can be created, each using an ARCNET Router (MN50-MI-RTR) hosting up to 94 devices (plus the ARCNET Router).

LONWORKS A LONWORKS FTT-10 Free Topology communications network can host up to 63 devices per segment. This can be increased to 128 using a repeater (theoretically, one LONWORKS domain can host up to 32,385 nodes). Details of network design and wiring requirements can be found at www.echelon.com/Products.

Controllers on the LONWORKS network communicate with other controllers in a peer-to-peer fashion and connect to MicroNet View and the VisiSat Configuration Tool via the standard LON FTT-10 cards. LON controllers can also connect to the Xenta 555 web server at the LonWorks TP/FT-10 connection.

DIMENSION DIAGRAM



Dimensions in mm

Weights:

MN-TS-NCP	567.3g
MN-TS-ARC	585.6g
MNL-TS-100	598.4g

MicroNet View provides alarm management and dynamic trend logging. Applications can be prepared and downloaded to the LON Touch Screen from the VisiSat Configuration Tool.

A LONWORKS FTT-10 network has a communications speed of up to 78k baud.

APPLICATIONS

The NCP and ARCNET Touch Screens provide the following functionality to the appropriate MicroNet Network:

- Controller Scheduling
- Alarm Viewing and Management
- Alarm and Parameter Polling of devices on a network
- Setpoint Monitoring
- Trending

The LON Touch Screen provides a unique display for any standard LON network:

- Visualization of SNVTs for any compliant LON product.
- Built-in scheduling.
- Manipulation of SNVT values using 'Bubbleland objects'.
- Built-in alarming.

CONNECTIVITY

The Touch Screen can be connected to a compatible controller or installed directly on a LONWORKS, NCP or ARCNET network. It connects to a PC with VisiSat Configuration Tool via the MicroNet Manager Interface (NCP and ARCNET) or directly to a PC with VisiSat Configuration Tool and a LON PC card (LonWorks network).

WARNING -

THE RTC BOARD CONTAINS A LITHIUM CHLORIDE BATTERY WHICH IS COMPLETELY SAFE WHILST IN NORMAL USE. THE BATTERY MUST BE DISPOSED OF IN ACCORDANCE WITH LOCAL WASTE REGULATIONS.

- Do not apply any voltages until a qualified technician has checked the system and the commissioning procedures have been completed.
- If any equipment covers have to be removed during the installation of this equipment, ensure that they are refitted after installation to comply with UL and CE safety requirements.
- This is a 24Vac device. Do not exceed rated voltage. Local wiring regulations and usual safety precautions apply.
- 24Vac must be supplied by a transformer conforming to EN 61558.
- Do not exceed the maximum ambient temperature.
- Interference with parts under sealed covers invalidates guarantee.
- The design and performance of TAC Satchwell equipment is subject to improvement and therefore liable to alteration without notice.
- Information is given for guidance only and TAC Satchwell does not accept responsibility for the selection and installation of its products unless information has been given by the Company, in writing, relating to a specific application.
- A periodic check of the Building Management System is recommended. Please contact your local sales office for details.

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