



# NC401VFD Master Station with Vacuum Fluorescent Display Specification Sheet

IL771  
Section C  
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**NC401VFD Master Station  
with Vacuum Fluorescent Display**

## **ARCHITECTS' AND ENGINEERS' SPECIFICATION**

The nurses' master station shall be TekTone® NC401VFD Master Station with integral 4×40 character Vacuum Fluorescent Display, or approved equal. The master station shall be powered from the NC450 Central Equipment, and shall have a membrane keypad used to control, access and program system features and access displayed calls. The keypad shall include 20 buttons with LEDs that may be programmed to access system features or to select patient stations, zones, masters or the system.

Master stations may be located anywhere within the facility's nurse/patient communications network. The master station shall be able to receive and display any or all calls placed in the system, including simultaneous call types from the same room. The master station shall be able to display 256 unique call types sorted first by call priority and then by the chronological time in which the calls were placed.

The master station shall be able to display up to 4 incoming calls with the ability to select a call and/or scroll to any active call using keys on the keypad.

The master station shall support master-to-patient or master-to-master audio using a choice of push-to-talk audio via an open microphone and loudspeaker, or private conversation

using the supplied handset. The master station shall also support automatic answer of the highest priority call or selective answer of any displayed call. All Page, Zone Page and Staff Page operation shall also be supported.

Audible call annunciation shall be optionally silenced for user definable call types (*Routine* by default) and shall sound pleasant. Silenced tones shall be regenerated by any new incoming call. Tone volume of all audible annunciations shall be easily varied for day and night use.

It shall be possible, from the master station, to block all loudspeaker paging to facilitate a low-noise patient environment, and to set/review patient privacy. Room monitoring with room number display shall be supported.

Three levels of staff assist shall be available from the master station: L1 (green), L2 (amber) and L3 (yellow). Call upgrade to Staff Emergency or other user defined call from the console shall also be supported. The master station shall be able to locate the three levels of staff, with remote cancellation of manual staff registration.

Zone capture of an individual nursing unit, selected units, or all units in facility shall be supported, as well as the ability to swing an individual room or any group of rooms. The master station shall also have the ability to perform day/night transfer between master stations.

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TekTone®'s quality system is registered by UL® to the ISO 9001:2000 standard. (File #A10766.)

Password protection shall allow authorized access only to audio paging or to other system configuration options.

Predefined and custom direct messaging to pocket pagers shall be supported. Individual staff-to-patient RF paging assignments shall be easily programmable from the master station at the beginning of each shift by selecting the staff member's name and changing their personal assignment screen. Staff-to-patient assignments shall be established directly using the patient's room and bed, and staff may receive all or only a selected subset of the 256 call types.

The master station shall be microprocessor-controlled and continuously supervised with self-diagnosing error messages. Its firmware shall be proprietary, avoiding the risk of "lock-up" that may occur with units that use popular commercial operating systems. The master station shall not depend on a hard disk, since this mass storage device is prone to spurious failure and subsequent data loss.

Master stations shall be programmed via the integrated user interface or a centrally connected PC running master station configuration software. It shall be possible to remove and/or replace any master station while the system is operational without losing any calls, damaging any system components, or reprogramming master station attributes.

The NC401 VFD shall be UL® 1069 Listed and cUL® Listed.

## FEATURES

The NC401 VFD Master Station is a primary component of the Tek-CARE®400 Nurse Call System. The NC401 VFD is the user interface for responding to calls, issuing staff requests, sending custom pages, viewing staff locations, and altering room programming to accommodate differing patient needs.

The master station is completely self-contained, including a 4×40 Vacuum Fluorescent Display, 20 programmable function buttons, alphanumeric and navigational keys, and a pull-out drawer with quick reference user instructions. The NC401 VFD displays up to 4 incoming calls simultaneously and allows staff to select or scroll to any active call using navigational keys on the keypad. Each call displays a unique timer that increments until that call is reset. Staff locations and system faults are displayed on separate dedicated screen views with pending status indications visible on the main call screen.

The master station's programming information and power are provided by the NC450 Central Equipment. Therefore, any NC401 VFD master station on the system can be replaced with another NC401 VFD without any reprogramming.

The NC401 VFD master station supports full-duplex audio to the patient stations, and allows staff to adjust incoming and outgoing volume for each station. Tone volume can be adjusted to increase the volume during the day and reduce the volume at night. Routine-level calls may be silenced using a programmable button assigned to the **TONE-OFF** function to further reduce noise at the nurses' station.

Each of the membrane keypad's 20 programmable buttons can be assigned to a patient station, a zone, a master, the system, or to one of these functions:

<u>Function</u>	<u>Description</u>
<b>L1</b>	Level 1 service request to selected station
<b>L2</b>	Level 2 service request to selected station
<b>L3</b>	Level 3 service request to selected station
<b>STAT</b>	Upgrade/place Staff Emergency call to selected station
<b>PHONE SILENCE</b>	Disable audible call annunciation
<b>MONITOR</b>	Monitor audio in selected zones
<b>ATTEND</b>	Display staff at selected station
<b>FOLLOW</b>	Send incoming calls to selected station
<b>HOLD</b>	Returns current call to the call list

The membrane keypad also provides these standard keys:

<u>Button</u>	<u>Function</u>
<b>ALPHA</b>	Toggle from alpha to numeric key functions
Alpha/Numeric	A-Z, SPACE, 1-9
Arrow keys	up, down, right, left for menu navigation
<b>#</b>	Selects bed when dialing a station
<b>ENTER</b>	Selects dialed item; cycles between beds on a single station
<b>MENU</b>	Cycles between Call Screen, Fault Screen, Staff Screen and User Screen
<b>RESET</b>	Resets an audio connection or clears a selection
<b>TALK</b>	Establishes an audio connection

- UL® 1069 Listed and cUL® Listed
- Supervised
- 4×40 Vacuum Fluorescent display
- Full-duplex audio
- Membrane keypad is water-resistant
- Simultaneous display of 4 calls
- Master-to-master intercom
- Up to 256 unique call types
- Automatic answer of highest priority call
- Selective answer of any call
- Four levels of staff service
- Attend feature to find staff
- Preprogrammed RF paging messages
- Set/review patient privacy
- View staff locations by staff level
- Room monitoring
- No computer required
- Overhead paging interface

## SPECIFICATIONS

Dimensions:	13.2"×9"×3.5" (335mm×229mm×89mm)
Capacity:	Address 640 stations in up to 256 zones
Environments:	26°C, relative humidity should not exceed 80%
Terminations:	Plug-in connector to CE
System Protection:	CE power limited by self-resetting current limiting device. ESD protected to 8kV.