

*Stability  
Age  
Beauty*



INCORPORATED

DATA-SCREEN<sup>TM</sup> TERMINALS



# Stability Age Beauty

Arizona's Tucson Mountains represent *stability*, a giant saguaro cactus, *age*, and the many facets of nature give us *beauty*.

Photographed by Ray Manley

When designing and producing display terminals, stability, age and beauty are important, too. TEC has been designing and building information display and control products since 1958 — that's *stability*, especially when it's been done profitably.

Since 1963 we've been designing and manufacturing crt terminals called DATA-SCREEN Terminals —that's *age*, and experience, in a young industry. Our carefully-styled terminals are compatible in any application, match any decor — that's *beauty*.

## DATA-SCREEN™ TERMINALS

Four basic interfaces — high speed parallel, message oriented serial, conversational serial and TTY replacement — five screen capacities — plus a full complement of application proved features and options are provided in 18 models that meet most requirements for fast, effective low-cost communications between man and computer working in business, industry, and science.

The selection chart below and the model descriptions on pages 4 and 5 plus complete specifications on page 6 indicate the broad scope and many features of the DATA-SCREEN Terminal family.

Model Selection Chart	INTERFACE														OPTIONS			
	PARALLEL (ASYNCHRONOUS)	SERIAL BUFFERED (BLOCK MODE)	CONVERSATIONAL (CHARACTER MODE)	ADDRESSABLE (POLLING)	FULL EDIT CAPABILITY	CURSOR POSITIONING BY COMPUTER	CURSOR ADDRESS READOUT TO COMPUTER	PROTECT BLINK FIELD TAB	SPACE SUPPRESSION	READ LOWER CASE, DISPLAY UPPER CASE	CRYSTAL OSCILLATOR	KEYBOARD WITH 16-KEY PAD	FIXED MESSAGE DISPLAY PANELS	HARD COPY INTERFACE (BUFFERED)	SPLIT BAUD RATE			
1400																		
1440																		
410, 415, 416																		
420, 425, 426																		
430, 435, 436																		
440																		
450, 455, 456																		
460, 465, 466																		



Modern styling with IBM-type keytops and simplified leg-ends highlight MINI-TEC Terminal's low profile keyboard.



Optional 16-key pad is available on all keyboards (except Models 440 and 1440) to speed numerical data entry.

## DATA-SCREEN™ TERMINALS

### Offer these features\*

- Five screen capacities
  - 960 (80 x 12)
  - 960 (40 x 24)
  - 1000 (50 x 20)
  - 1728 (72 x 24)
  - 1920 (80 x 24)
- Four basic interfaces
  - High speed parallel
  - Message oriented serial
  - Conversational serial
  - Teletypewriter replacement
- Exclusive DATA•PANEL® Display option
- Non-glare CRT face
- Sharp, 5 x 7 dot matrix characters
- Up to 67 displayable characters
- MOS memory
- Separate keyboard with 16-key pad option
- Low profile keyboards with IBM style keys
- Mode indicators on keyboard
- Full edit features on many models
- Read lower case, display upper case
- Bottom line data entry option (field selectable)
- Automatic line feed with carriage return option (field selectable)
- Roll-up
- Programmable read function
- Space suppression by terminal logic
- Cursor positioning by computer
- Cursor address readout to computer
- Cursor symbol display option (field selectable)
- Carriage return symbol display option (field selectable)
- Message blink
- Protected text selection (protected areas displayed at reduced intensity)
- Field tab
- RS-232, TTL, 20/60ma current loop signal compatibility
- 110 to 9600 serial baud rate (switch selectable)
- Split baud rate option
- Conversational or buffered mode
- Conversational and buffered mode (operator selectable)
- Half/full duplex communication modes (switch selectable)
- 10/11 bit, start-stop format
- "Here is" answer back option
- Multi-station poll/select models
- Parallel rates to 800,000 characters per second
- Long line driver option
- Hard copy outputs; printer interface options
- Attractive, rugged vinyl or painted finishes
- Remote monitors in matching enclosures
- Rack mounting option
- 115/230 VAC, 50/60Hz (switch selectable option)

\*Not all features available in all models. See specifications on pages 4, 5, and 6.



DATA•PANEL® fixed message display is computer controlled, provides operator with instructions and systems status reports.



RVM Series remote monitors in matching enclosures operate from BNC connector provided on every DATA-SCREEN Terminal.





## MINI-TEC™

### DATA-SCREEN™ TERMINALS

Maximum terminal performance at truly low cost is provided by TEC's dramatic new line of MINI-TEC Terminals. Many more expensive terminals don't offer all the features that are standard in these compact, no-nonsense terminals.

MINI-TEC, a fifth generation DATA-SCREEN Terminal, is all new — from low profile keyboards with curved, "IBM style" key rows and simplified keytop legends to cleanly designed terminal enclosures. Decorator finishes in walnut wood grain vinyl, white goat skin vinyl, or rugged blue Armohide paint are standard.



Finished in white goat skin vinyl



Finished in walnut wood grain vinyl

Many of the switch selectable data entry and interface options that have proved so popular in the industry accepted Series 400 are present in MINI-TEC Terminals. Features new to the DATA-SCREEN Terminal line are also offered by MINI-TEC Terminals and include, in addition to the low profile keyboard, protected messages displayed at reduced intensity, space suppression (multiple space codes removed by terminal logic) and lower case codes read and displayed as upper case characters.

MINI-TEC Terminals are built and tested to the same high quality and reliability standards of Series 400 DATA-SCREEN Terminals.

This table lists interface capabilities and features of each model.  
The chart on page 6 presents detailed specifications.

MODEL	INTERFACE	FEATURES		
1400 SERIAL, BUFFERED AND CONVERSATIONAL MODE	<ul style="list-style-type: none"><li>Serial, speeds to 9600 baud — switch selectable</li><li>RS-232, TTL, 20/60ma current loop interface</li><li>Conversational or buffered message transmission</li><li>Optional printer interface</li></ul>	<ul style="list-style-type: none"><li>Cursor keyboard controls — limited editing capability</li></ul>	<ul style="list-style-type: none"><li>Reads lower case codes — displays upper case characters</li></ul>	
		<ul style="list-style-type: none"><li>Low profile keyboard with optional 16-key pad</li><li>Cursor address — cursor readout</li><li>Tab, protect &amp; blink features</li><li>Programmable read function</li><li>Split baud rate — transmit at one speed, receive at another — optional</li></ul>	<ul style="list-style-type: none"><li>Space suppression by terminal</li><li>960 (80 x 12) character display</li><li>Automatic roll-up with line feed — optional</li></ul>	
1440 TELETYPEWRITER REPLACEMENT, CONVERSATIONAL MODE	<ul style="list-style-type: none"><li>Serial, speeds to 9600 baud — switch selectable</li><li>RS-232, TTL, 20/60ma current loop interface</li><li>Conversational (on line) message transmission</li><li>Hard copy output</li></ul>	<ul style="list-style-type: none"><li>Teletypewriter control keys including "break" and "escape"</li><li>Low profile keyboard</li><li>Split baud rate — transmit at one speed, receive at another — optional</li><li>Bottom line data entry</li></ul>	<ul style="list-style-type: none"><li>Automatic line feed with carriage return — selectable</li><li>Reads lower case codes — displays upper case characters</li><li>1728 (72 x 24) or 1920 (80 x 24) character switch selectable display</li></ul>	
		<ul style="list-style-type: none"><li>Teletypewriter control keys including "break" and "escape"</li><li>Low profile keyboard</li><li>Split baud rate — transmit at one speed, receive at another — optional</li><li>Bottom line data entry</li></ul>	<ul style="list-style-type: none"><li>Automatic line feed with carriage return — selectable</li><li>Reads lower case codes — displays upper case characters</li><li>1728 (72 x 24) or 1920 (80 x 24) character switch selectable display</li></ul>	

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## ERIES 400

### ATA-SCREEN™ TERMINALS

From a single model introduced in 1970, the Series 400 line now consists of 16 models offering parallel, serial, polling, and teletypewriter compatible and replaceable interfaces. With this varied model selection OEM's and end users can purchase the various types of terminals they require from a single source and get consistent terminal design — in logic — in styling — in finishes. Maintenance is simplified too, because many logic cards, power supply, and other assemblies are common. Standard finishes are walnut wood grain vinyl and blue Armohide paint.

Series 400 Terminals offer additional display capacity through exclusive DATA•PANEL® Display\* that presents up to 16 fixed messages backlighted in various colors. Customized messages are most often used to give operators data entry procedures, indicate computer processing modes and display system status and alarms.

Every Series 400 Terminal offers important display, data entry and interface options that can be field set to customize the terminal to the system when it is installed. Should requirements change it is possible to quickly reconfigure the terminal with these option selections — or even change interface, screen capacities, and other major functions by changing logic cards.

Reliability of the Series 400 has been proved in hundreds of thousands of hours of operation in all types of environment and minimum time between failures (MTBF) is now 5000 hours.

\*Not available in Model 440.

#### FEATURES

- |   |   |
|---|---|
| <ul style="list-style-type: none"><li>Full message editing capability &amp; cursor controls</li><li>Reply-acknowledge feature allows computer to control data transfer rates between terminal and CPU</li><li>Cursor address — cursor readout</li><li>Tab, protect &amp; blink features</li></ul> | <ul style="list-style-type: none"><li>Programmable read function</li><li>Bottom line entry/automatic line feed — selectable options</li><li>960 (40 x 24), 1000 (50 x 20), 1920 (80 x 24) character display models</li><li>DATA•PANEL® Display — optional</li></ul> |
|---|---|

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|--|--|
| <ul style="list-style-type: none"><li>Full message editing capability &amp; cursor controls</li><li>Cursor address — cursor readout</li><li>Tab, protect &amp; blink features</li><li>Programmable read function</li></ul> | <ul style="list-style-type: none"><li>Bottom line entry/automatic line feed — selectable options</li><li>960 (40 x 24), 1000 (50 x 20), 1920 (80 x 24) character display models</li><li>DATA•PANEL® Display — optional</li></ul> |
|--|--|

- |  |   |
|--|---|
| <ul style="list-style-type: none"><li>Full message editing capability &amp; cursor controls</li><li>Cursor address</li><li>Tab, protect &amp; blink features</li><li>Bottom line entry/automatic line feed — selectable option</li></ul> | <ul style="list-style-type: none"><li>"Break" &amp; "escape" key features</li><li>960 (40 x 24), 1000 (50 x 20), 1920 (80 x 24) character display models</li><li>DATA•PANEL® Display — optional</li></ul> |
|--|---|

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|---|---|
| <ul style="list-style-type: none"><li>Teletypewriter control keys including "break" and "escape"</li><li>Automatic line feed with carriage return — selectable</li><li>Split baud rate — transmit at one speed, receive at another — optional</li></ul> | <ul style="list-style-type: none"><li>Bottom line data entry</li><li>Reads lower case codes — displays upper case characters</li><li>1728 (72 x 24) or 1920 (80 x 24) character switch selectable display</li></ul> |
|---|---|

- |   |  |
|---|--|
| <ul style="list-style-type: none"><li>Full message editing capability &amp; cursor controls</li><li>"Break" &amp; "escape" key functions</li><li>Split baud rate — transmit at one speed, receive at another — optional</li><li>Cursor address — cursor readout</li><li>Tab, protect &amp; blink features</li></ul> | <ul style="list-style-type: none"><li>Programmable read function</li><li>Bottom line entry/automatic line feed — selectable options</li><li>"Here is" answerback — option</li><li>960 (40 x 24), 1000 (50 x 20), 1920 (80 x 24) character display</li><li>DATA•PANEL® Display — optional</li></ul> |
|---|--|

- |  |   |
|--|---|
| <ul style="list-style-type: none"><li>Full message editing capability &amp; cursor controls</li><li>Cursor address</li><li>Tab, protect &amp; blink features</li><li>Programmable read function</li><li>Bottom line entry/automatic line feed — selectable options</li><li>Crystal oscillator standard</li></ul> | <ul style="list-style-type: none"><li>Longitudinal &amp; character parity check</li><li>Keyboard with 11-key numeric pad standard</li><li>960 (40 x 24), 1000 (50 x 20), 1920 (80 x 24) character display models</li><li>DATA•PANEL® Display — optional</li></ul> |
|--|---|





Finished in white goat skin vinyl

Many of the switch selectable data entry and interface options that have proved so popular in the industry accepted Series 400 are present in MINI-TEC Terminals. Features new to the DATA-SCREEN Terminal line are also offered by MINI-TEC Terminals and include, in addition to the low profile keyboard, protected messages displayed at reduced intensity, space suppression (multiple space codes removed by terminal) and lower case codes read and displayed as upper case characters.

MINI-TEC Terminals are built and tested to the same high quality and reliability standards of Series 400 DATA-SCREEN Terminals.

This table lists interface capabilities and features of each model. The chart on page 6 presents detailed specifications.

MODEL	INTERFACE
<b>1400</b> SERIAL, BUFFERED AND CONVERSATIONAL MODE	<ul style="list-style-type: none"><li>Serial, speeds to 9600 baud — switch selectable</li><li>RS-232, TTL, 20/60ma current loop interface</li><li>Conversational or buffered message transmission</li><li>Optional printer interface</li></ul>
<b>1440</b> TELETYPEWRITER REPLACEMENT, CONVERSATIONAL MODE	<ul style="list-style-type: none"><li>Serial, speeds to 9600 baud — switch selectable</li><li>RS-232, TTL, 20/60ma current loop interface</li><li>Conversational (on line) message transmission</li><li>Hard copy output</li></ul>



I'm interested in Model \_\_\_\_\_ DATA-SCREEN Terminal

☐ I have further questions — please call me at ( \_\_\_\_\_ )

☐ Immediately

☐ Please call me to arrange a demonstration date

I'm considering interfacing with \_\_\_\_\_

Name \_\_\_\_\_ Title \_\_\_\_\_  
(Please Print)

Firm \_\_\_\_\_

Dept. Or Division \_\_\_\_\_

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SERIES 400

DATA-SCREEN™ TERMINALS

From a single model introduced in 1970, the Series 400 line now consists of 16 models offering parallel, serial, polling, and teletypewriter compatible and replaceable interfaces. With this varied model selection OEM's and end users can purchase the various types of terminals they require from a single source and get consistent terminal design — in logic — in styling — in finishes. Maintenance is simplified too, because many logic cards, power supply, and other assemblies are common. Standard finishes are walnut wood grain vinyl and blue Armorthide paint.

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Reliability of the Series 400 has been proved in hundreds of thousands of hours of operation in all types of environment and minimum time between failures (MTBF) is now 5000 hours.

\*Not available in Model 440.

FEATURES

<ul style="list-style-type: none"><li>Full message editing capability &amp; cursor controls</li><li>Reply-acknowledge feature allows computer to control data transfer rates between terminal and CPU</li><li>Cursor address — cursor readout</li><li>Tab, protect &amp; blink features</li></ul>	<ul style="list-style-type: none"><li>Programmable read function</li><li>Bottom line entry/automatic line feed — selectable options</li><li>960 (40 x 24), 1000 (50 x 20), 1920 (80 x 24) character display models</li><li>DATA•PANEL® Display — optional</li></ul>
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Finished in white goat skin vinyl

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MODEL	INTERFACE
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<b>1440</b> TELETYPEWRITER REPLACEMENT, CONVERSATIONAL MODE	<ul style="list-style-type: none"> <li>Serial, speeds to 9600 baud — switch selectable</li> <li>RS-232, TTL, 20/60ma current loop interface</li> <li>Conversational (on line) message transmission</li> <li>Hard copy output</li> </ul>

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Finished in blue Armorphide paint

This table lists interface capabilities and features of each model. The chart on page 6 presents detailed specifications.

MODEL	INTERFACE	FEATURES
<b>410, 415, &amp; 416</b> HIGH SPEED, PARALLEL I/O, BUFFERED	<ul style="list-style-type: none"> <li>Parallel, speeds to 800,000 char/sec</li> <li>TTL compatible</li> <li>Buffered message transmission</li> <li>Optional line drivers</li> <li>H-316/516 interface module</li> <li>Optional printer interface</li> </ul>	<ul style="list-style-type: none"> <li>Full message editing capability &amp; cursor controls</li> <li>Reply-acknowledge feature allows computer to control data transfer rates between terminal and CPU</li> <li>Cursor address — cursor readout</li> <li>Tab, protect &amp; blink features</li> <li>Programmable read function</li> <li>Bottom line entry/automatic line feed — selectable options</li> <li>960 (40 x 24), 1000 (50 x 20), 1920 (80 x 24) character display models</li> <li>DATA•PANEL® Display — optional</li> </ul>
<b>420, 425, &amp; 426</b> SERIAL, POLLING, BUFFERED	<ul style="list-style-type: none"> <li>Serial, speeds to 9600 baud — switch selectable</li> <li>RS-232 or TTL compatible</li> <li>Polling interface — to 63 terminals on a single channel</li> <li>Message oriented/interrupt oriented interface for dedicated channel</li> <li>Buffered message transmission</li> <li>Optional printer interface</li> </ul>	<ul style="list-style-type: none"> <li>Full message editing capability &amp; cursor controls</li> <li>Cursor address — cursor readout</li> <li>Tab, protect &amp; blink features</li> <li>Programmable read function</li> <li>Bottom line entry/automatic line feed — selectable options</li> <li>960 (40 x 24), 1000 (50 x 20), 1920 (80 x 24) character display models</li> <li>DATA•PANEL® Display — optional</li> </ul>
<b>430, 435, &amp; 436</b> TELETYPEWRITER COMPATIBLE, CONVERSATIONAL MODE	<ul style="list-style-type: none"> <li>Serial, speeds to 2400 baud — switch selectable</li> <li>RS-232, TTL, or current loop interface</li> <li>Conversational (on line) message transmission</li> <li>Hard copy output</li> </ul>	<ul style="list-style-type: none"> <li>Full message editing capability &amp; cursor controls</li> <li>Cursor address</li> <li>Tab, protect &amp; blink features</li> <li>Bottom line entry/automatic line feed — selectable option</li> <li>"Break" &amp; "escape" key features</li> <li>960 (40 x 24), 1000 (50 x 20), 1920 (80 x 24) character display models</li> <li>DATA•PANEL® Display — optional</li> </ul>
<b>440</b> TELETYPEWRITER REPLACEMENT, CONVERSATIONAL MODE	<ul style="list-style-type: none"> <li>Serial, speeds to 9600 baud — switch selectable</li> <li>RS-232, TTL, 20/60ma current loop interface</li> <li>Conversational (on line) message transmission</li> <li>Hard copy output</li> </ul>	<ul style="list-style-type: none"> <li>Teletypewriter control keys including "break" and "escape"</li> <li>Automatic line feed with carriage return — selectable</li> <li>Split baud rate — transmit at one speed, receive at another — optional</li> <li>Bottom line data entry</li> <li>Reads lower case codes — displays upper case characters</li> <li>1728 (72 x 24) or 1920 (80 x 24) character switch selectable display</li> </ul>
<b>450, 455, &amp; 456</b> SERIAL, BUFFERED AND CONVERSATIONAL MODE	<ul style="list-style-type: none"> <li>Serial, speeds to 9600 baud — switch selectable</li> <li>RS-232, TTL, 20/60ma current loop interface</li> <li>Conversational or buffered message transmission</li> <li>Optional printer interface</li> </ul>	<ul style="list-style-type: none"> <li>Full message editing capability &amp; cursor controls</li> <li>"Break" &amp; "escape" key functions</li> <li>Split baud rate — transmit at one speed, receive at another — optional</li> <li>Cursor address — cursor readout</li> <li>Tab, protect &amp; blink features</li> <li>Programmable read function</li> <li>Bottom line entry/automatic line feed — selectable options</li> <li>"Here is" answerback — option</li> <li>960 (40 x 24), 1000 (50 x 20), 1920 (80 x 24) character display</li> <li>DATA•PANEL® Display — optional</li> </ul>
<b>460, 465, &amp; 466</b> SERIAL, POLLING, BUFFERED (Burroughs Compatible)	<ul style="list-style-type: none"> <li>Serial, speeds to 9600 baud — switch selectable</li> <li>RS-232, single line OV to -12V</li> <li>Polling interface — 4096 possible addresses</li> <li>Burroughs polling format compatible</li> <li>Buffered message transmission</li> <li>Optional printer interface</li> </ul>	<ul style="list-style-type: none"> <li>Full message editing capability &amp; cursor controls</li> <li>Cursor address</li> <li>Tab, protect &amp; blink features</li> <li>Programmable read function</li> <li>Bottom line entry/automatic line feed — selectable options</li> <li>Crystal oscillator standard</li> <li>Longitudinal &amp; character parity check</li> <li>Keyboard with 11-key numeric pad standard</li> <li>960 (40 x 24), 1000 (50 x 20), 1920 (80 x 24) character display models</li> <li>DATA•PANEL® Display — optional</li> </ul>

## SERIES 400

### DATA-SCREEN™ TERMINALS

From a single model introduced in 1970, the Series 400 line now consists of 16 models offering parallel, serial, polling, and teletypewriter compatible and replaceable interfaces. With this varied model selection OEM's and end users can purchase the various types of terminals they require from a single source and get consistent terminal design — in logic — in styling — in finishes. Maintenance is simplified too, because many logic cards, power supply, and other assemblies are common. Standard finishes are walnut wood grain vinyl and blue Armorphide paint.

Series 400 Terminals offer additional display capacity through exclusive DATA•PANEL® Display\* that presents up to 16 fixed messages backlit in various colors. Customized messages are most often used to give operators data entry procedures, indicate computer processing modes and display system status and alarms.

Every Series 400 Terminal offers important display, data entry and interface options that can be field set to customize the terminal to the system when it is installed. Should requirements change it is possible to quickly reconfigure the terminal with these option selections — or even change interface, screen capacities, and other major functions by changing logic cards.

Reliability of the Series 400 has been proved in hundreds of thousands of hours of operation in all types of environment and minimum time between failures (MTBF) is now 5000 hours.

\*Not available in Model 440.



DATA-SCREEN™ TERMINALS ARE COMPUTER TESTED

Mini-computers are programmed to test every function of DATA-SCREEN Terminals in final test and final inspection areas.



Exceptional reliability of DATA-SCREEN Terminals is achieved by a procedure that computer tests terminals and their subassemblies a minimum of five times:

Printed circuit logic cards are individually tested on a computerized PCB test instrument after 7-day burn-in period.

They are tested again, in their terminal environment, by a computer-controlled program that exercises every function of terminal logic.

Skilled inspectors and computerized PCB test systems fully check each completed printed circuit board before it moves to final assembly lines.



After a 168-hour burn-in at elevated temperatures every terminal is computer tested using both parallel and serial interfaces to verify high and low speed data transfer capabilities as well as again testing logic functions.

When a terminal moves to final inspection its various options are set to the customer's inter-

Every "raw" printed circuit board is visually inspected before it moves to component insertion and automatic soldering lines.



face requirements, burned-in an additional 12 hours and then computer tested again to prove interface operation as well as performing a final check on logic functions.

The fan-cooled solid state logic of DATA-SCREEN Terminals has proved highly reliable, but should a component fail, TEC offers a printed circuit board exchange plan that puts a replacement board in the mail within 24 hours. Keeping a spare set of printed circuit boards on hand can reduce terminal downtime to a minute or less.

SPECIFICATIONS: DATA-SCREEN TERMINALS BY MODEL

	MINI-TEC 1400	MINI-TEC 1440	410-416	415	420/426	425	430/436	435	440	450/456	455	460/466	465
DISPLAY													
SCREEN CAPACITY, NUMBER OF CHARACTERS	960	1728/1920	1000/960	1920	1000/960	1920	1000/960	1920	1728/1920	1000/960	1920	1000/960	1920
CHARACTERS PER LINE/LINES PER SCREEN	80x12	72or80x24	50x20/40x24	80x24	50x20/40x24	80x24	50x20/40x24	80x24	72or80x24	50x20/40x24	80x24	50x20/40x24	80x24
CHARACTERS SIZE (Height x Width — Inches)	.20x.08	.14x.08	.21x.15	.20x.08	.21x.15	.20x.08	.21x.15	.20x.08	.14x.08	.21x.15	.20x.08	.21x.15	.20x.08
NUMBER OF DISPLAYABLE CHARACTERS	63	63	67	67	67	67	67	67	63	67	67	67	67
CURSOR KEYBOARD CONTROLS	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
CURSOR POSITIONING BY COMPUTER	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
CURSOR ADDRESS READABLE BY COMPUTER	Yes	No	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	No	No
AUTOMATIC ROLL-UP	Selectable	Yes	Selectable	Selectable	Selectable	Selectable	Selectable	Selectable	Yes	Selectable	Selectable	Selectable	Selectable
AUTOMATIC LINE FEED WITH CARRIAGE RETURN	No	Selectable	Selectable	Selectable	Selectable	Selectable	Selectable	Selectable	Selectable	Selectable	Selectable	Selectable	Selectable
READ LOWER CASE — DISPLAY UPPER CASE	Yes	Optional	No	No	No	No	No	No	Optional	No	No	No	No
MESSAGE EDITING CAPABILITY	Limited	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
MESSAGE BLINK, PROTECT & FIELD TAB	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
PROTECT DISPLAYED AT REDUCED INTENSITY	Yes	No	No	No	No	No	No	No	No	No	No	No	No
SPACE SUPPRESSION BY TERMINAL LOGIC	Selectable	No	No	No	No	No	No	No	No	No	No	No	No
INTERFACE													
SIGNAL LEVELS	TTL RS-232 20/60ma	TTL RS-232 20/60ma	TTL	TTL	TTL RS-232 20/60ma	TTL RS-232 20/60ma	TTL RS-232 20/60ma	TTL RS-232 20/60ma	TTL RS-232 20/60ma	TTL RS-232 20/60ma	TTL RS-232 20/60ma	RS-232 Direct two wire (0V to -12V)	RS-232 Direct two wire (0V to -12V)
SERIAL BAUD RATES (Switch Selectable)	110-9600	110-9600	—	—	110-9600	110-9600	110-2400	110-2400	110-9600	110-9600	110-9600	110-9600	110-9600
PARALLEL RATE (Characters Per Second)	—	—	0-1000 10,000-400,000	0-1000 10,000-800,000	—	—	—	—	—	—	—	—	—
TRANSMIT MODE (Switch Selectable)	Half/Full Duplex	Half/Full Duplex	—	—	Half/Full Duplex	Half/Full Duplex	Half/Full Duplex	Half/Full Duplex	Half/Full Duplex	Half/Full Duplex	Half/Full Duplex	Half Duplex	Half Duplex
POLL/SELECT (Multi-Station)	No	No	No	No	Yes (63)	Yes (63)	No	No	No	No	No	Yes (4096)	Yes (4096)
TRANSMISSION FORMAT	10/11 Bit Start-Stop	10/11 Bit Start-Stop	7-Bit Parallel	7-Bit Parallel	10/11 Bit Start-Stop	10/11 Bit Start-Stop	10/11 Bit Start-Stop	10/11 Bit Start-Stop	10/11 Bit Start-Stop	10/11 Bit Start-Stop	10/11 Bit Start-Stop	10-Bit Start-Stop	10-Bit Start-Stop
CONNECTOR FOR TTY PRINTER, etc.	No	Yes	No	No	No	No	Yes	Yes	Yes	No	No	No	No
EXTRA COST OPTIONS													
DATA-PANEL® FIXED MESSAGE DISPLAY (with monitor)	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
HARD COPY INTERFACE (Buffered)	Yes	No	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes
KEYBOARD WITH 16-KEY PAD	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	11-Key Pad Standard	11-Key Pad Standard
"HERE IS" ANSWER BACK	No	No	No	No	No	No	No	No	No	Yes	Yes	No	No
SPLIT BAUD RATE	Yes	Standard	No	No	No	No	No	No	Standard	Yes	Yes	No	No

SPECIFICATIONS COMMON TO ALL DATA-SCREEN TERMINAL MODELS

DISPLAY: 12" direct view, non-glare CRT, 74 sq. in. viewing area. TV type horizontal raster scan. P4 (white) phosphor standard. P31 (green) optional. REFRESH RATE: 50 or 60 Hz, crystal controlled. CHARACTER GENERATION: 5 x 7 dot matrix. CURSOR: Blinking underline, alternates with displayed characters at 4 Hz. INTERFACE CODE: USASCII 7-bit. REMOTE MONITOR OUTPUT SOCKET (BNC): Located on rear panel. REMOTE MONITORS: In matching enclosures and finishes; see RVM Series. INTERNAL COOLING FAN: Provided in all models. TEMPERATURE RANGE: Operating, +10°C to +40°C; storage, -40°C to +65°C; both at 80% relative humidity (non-condensing). POWER REQUIREMENTS: 115 or 230 VAC; 50 or 60 Hz, 150 watts, maximum. WARRANTY: 90 days, parts and labor. All specifications subject to change without notice.

STANDARD FINISHES: Series 400 — walnut woodgrain vinyl or blue Armohide paint. MINI-TEC — walnut woodgrain or white goat skin vinyl or blue Armohide paint. Other finishes — special order. DIMENSIONS AND SHIPPING WEIGHT — SERIES 400: Desk top with monitor: 17-1/8" W x 19-3/4" D x 13" H; 68 pounds. Desk top without monitor: 18" W x 10" D x 11-3/4" H; 48 pounds. Rack mount with monitor: 19" W x 17-1/4" D x 12-1/4" H; 65 pounds. Rack mount without monitor: 19" W x 8-3/8" D x 10" H; 39 pounds. Subassembly "kit": monitor assembly, 11-1/2" W x 11-1/2" D x 11" H; power supply, 6-1/2" W x 6-1/2" D x 9-1/2" H; PCB card cage, 7-1/8" W x 6-1/2" D x 9-1/2" H; 35 pounds. MINI-TEC, Desk Top: 12-5/16" W x 14" D x 12" H; 45 pounds. MINI-TEC, Rack Mount: 19" W x 17-1/4" D x 12-1/4" H; 50 pounds. \*For keyboard add 7" to depth. Weights include keyboard.

DATA-SCREEN™ TERMINALS

A Package To Fit Your System



DATA-SCREEN Terminal controller for remotely located crt monitors can be placed on desk, shelf or wall-mounted. Standard TEC finishes are available.

Series 400 can be rack-mounted. Shown here with monitor and DATA-PANEL® Display option. Rack mount with control logic only is available for use with remote crt monitor.



MINI-TEC Terminals are available in rack mount configurations. All package options shown are available with standard and 16-key pad keyboards.

Series 400 Terminals are offered in a kit of subassemblies for custom installations. Each kit is fully pre-tested and requires only connector hook-ups and power.



An Interface To Fit Your System



MINI-TEC Terminal's transmit mode, half/full duplex mode, baud rates and AC power input are set with easily accessible back panel switches.

Series 400 DATA-SCREEN Terminal back panel switches control 115/230VAC, 50/60Hz selection, remote/local mode, half/full duplex mode and other options related to specific interfaces.



By simply exchanging printed circuit logic boards in many models, data rates, screen capacities and other options can be changed.

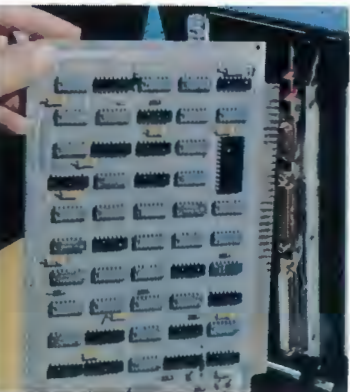
Field selection of options including stop bits, parity, auto roll-up and line feed, display or non-display of cursor and carriage return symbol are made on the PCB.



TEC designed computer and printer interfaces mount in the terminal or in the computer (TEC's Honeywell H316/516 interface shown). Printer interfaces available include Centronics, Data Interface, Facit, Printec, Scope, Tally, and Versatec models.



DATA-SCREEN™ Terminal Accessibility



Printed circuit boards of Series 400 DATA-SCREEN Terminals can be changed in a minute without special tools by releasing three ¼-turn fasteners, removing back panel and sliding out logic PCB's.

Four screws secure back panel of the MINI-TEC Terminals and removed, PCB's, power supply regulator board and other electronics are readily accessible. Enclosure covers of all DATA-SCREEN Terminals are easily removed if necessary.





## DATA-SCREEN™

Terminals are compatible with the systems in which they operate and equally important, styled to be compatible with the environment in which they work. Standard finishes offered for MINI-TEC Terminals are walnut wood grain and white goat skin vinyl and blue Armorhide paint. Series 400 Terminals offer walnut wood grain vinyl and blue Armorhide paint. Durable, easily maintained vinyl finishes complement office decor while rugged yet attractive Armorhide paint is ideally suited for any application from front office to factory. TEC can also provide many other custom finishes for specific OEM and end user applications. Consult your TEC sales office for details.



**DATA-SCREEN™** Terminals are sold internationally and all offices are listed on the insert included in this brochure. TEC's U.S. and European offices are listed below.

**SERVICE** by factory trained personnel is available regionally. Contact your local TEC sales office for information.

**LEASING** arrangements for **DATA-SCREEN™** Terminals are available through recognized, highly reputable financial organizations. Your local TEC sales office will provide additional details.

**TEC's Components Division** designs and builds **TEC-LITE** Indicating Devices. Since 1958 this division has produced millions of indicators, switches, digital readouts and display panels used for information display and control in computers, process control systems and countless other applications where man and machine must communicate effectively, efficiently. For product information, request brochure #986SD.

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