

Hardware Specifications

This chapter provides specific information about the TRAKKER T2090 equipment, including mechanical, electrical, and environmental specifications for the T2090 and EZ Dock Docking System.

TRAKKER T2090 Specifications

The following tables provide hardware specifications for the TRAKKER T2090.

Mechanical Specifications

Item	Description
Case Material	High impact thermoplastic, tamper resistant case design non-slip surfaces sealed for dust and moisture
Color	Intermec blue or Intermec gray
Dimensions	3.16" W x 7.38" L x 1.68" H
Ergonomics	Designed for true one-hand operation, either hand, with or without gloves
Weight	10 oz. (including batteries)
Display	8 line by 20 character, temperature compensated, Film Supertwist LCD with user enabled backlight operation
Keypad	Unique 13 key alphanumeric, 3 software function keys, tactile and audio feedback
Connectors	Contact RS-485 / RS-232 port and charging
Visual Indicators	Power ON/OFF, Low Battery and GOOD/BAD scanner READ
Audio Indicator	Keyclick - User enabled /disabled using Int 16h

Electrical Specifications

Item	Description
External Power	8vDC @450mA (charging requirement)
Internal Power	Rechargeable NiMH, 2.4v @ 1,200 mAh
Battery Capacity	10-20 hours typical usage including 600 bar code scans
Recharging Time	Less than 4 hours in approved docking station
Power Management:	5 advanced states: On, Doze, Sleep, Suspend, and Off

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Environmental Specifications

Item	Description
Operating temperature	-4° to +122° F (-20° to +50° C)
Storage temperature	-4° to +158° F (-20° to +70° C)
Humidity	5 to 95 percent
Drop / Shock	Survives multiple, four-foot drops to concrete
Vibration	5-50 Hz @ 1 Grms, 50-300 Hz @ 0.5 Grms

Bar Code Scanner Specifications

Item	Description
Operation	Keyboard trigger for TRUE one hand operation for either hand
Indicator	Displayed on LCD screen and a GOOD/BAD scanner READ LED, with or without audio
Emission Class	CDRH Class II
Emission Duration	Greater than 0.25 seconds
Emission Limit	Less than 0.001 W
Scan Range	1 to 36 inches
Symbologies	Standard width modulated bar codes

Processing Specifications

Item	Description
Microprocessor	NEC V30, 32 MHz
Flash ROM	2 MB for DOS, BIOS and Flash File, upgradable to 4 MB
RAM	2 MB
Real Time Clock	Internal, 1 second resolution
Operating System	DOS 6.22 compatible

EZ Dock Specifications

The following tables provide specifications for the EZ Dock Docking System.

Power Module Mechanical Specifications

Item	Description
Case Material	High impact thermoplastic
Color	Intermec blue or Intermec gray
Dimensions	5.40" W x 5.40" L x 5.70" H
Weight	19.5 oz.
Connectors	(2) RJ45 connectors for data Power in is a mini Molex Contact RS-232/485 port and charging
Visual Indicators	Power ON/OFF on front

2-Slot Cradle Mechanical Specifications

Item	Description
Case Material	High impact thermoplastic
Color	Intermec blue or Intermec gray
Dimensions	4.00" W x 5.40" L x 5.70" H
Weight	13.0 oz.
Contacts	Contact RS-232/485 port and charging

Docking System Environmental Specifications

Item	Description
Operating temperature	-4° to +122° F (-20° to +50° C)
Storage temperature	-4° to +158° F (-20° to +70° C)
Ambient temperature	32° to +104° F (0° to +40° C)
Humidity	5 to 95 percent

Vibration

5-50 Hz @ 1 Grms, 50-300 Hz @ 0.5 Grms

RS-232 and RS-485 Communications Configurations

Serial communications can be configured for either RS-232 or RS-485 protocols.

On the 2-slot cradle, there are two resident RJ45 connectors, which are used to make hardwire connections to host systems and other peripheral equipment.

For single-cradle configurations, two types of connections can be made: dedicated mode or multidrop.

- In multidrop mode, the user would communicate with both hand-held units at the same time whether RS-232 or RS-485 by connecting a single COM cable to the innermost RJ45 connector.
- For dedicated configurations the user can communicate to each of the two hand-helds individually by connecting two cables and by activating a small switch located on the inside panel of the 2-slot cradle. This will separate the signals for the two-cradle positions.

The switch is in the UP position for multidrop communications and DOWN for dedicated configurations.

The dedicated option is not configurable for multi-cradle applications.

Pin	RS-232 Signal	Description	RS-485 Signal
1	N/C	No Connect	N/C
2	N/C	No Connect	N/C
3	GND	Ground	GND
4	RxD	Serial Data	Data -
5	TxD	Serial Data	Data +
6	V _{IN}	Power IN	V _{IN}
7	N/C	No Connect	N/C
8	N/C	No Connect	N/C

These signals are transmitted through the power module and 2-slot cradle assemblies from the RJ45 connectors positioned in the unit.

Cabling Information

Intermec makes available seven different cables to assist the developer in building applications :

590819 RS-232 power module to PC only (9F pin, 12')

590818 RS-232 power module to PC or modem (25 pin, 12')

590816 RS-485 power module to PC (25F pin, 8')

598485 RS-485 power module to PC (25F pin, 50')

598486 RS-485 power module to PC (25F pin, 100')

590809 RS-485 termination cable (0-50')

590484 RS-485 termination cable (51-100')

Power Module connectors are all RJ45 type. Pin outs for individual cables are available from Intermec Technical Support. To comply with FCC regulations, the cables must be shielded.

Power Supply Information

There are two power supplies available through Intermec. Both models will operate on input voltages of 100 to 250 volts AC and have outputs of +9 volts DC. Model # **590822** is designed to power up to two cradle configurations and has a output rating of 1.9 amps, the # **590817** model has the same output voltage but output amperage of 5.0 amps and is designed to power up to five cradle configurations.

Power supplies are UL, CE, VDE, and CSA listed.

# of 2-Bay Cradles	Input Amps	Power Supply
1	0.9	590822 9v 1.9A
2	1.8	
3	2.7	590817 9v 5.0A
4	3.6	
5	4.5	