

Crestron **ST-DSN**
Docking Station

Operations Guide



This document was prepared and written by the Technical Documentation department at:



Crestron Electronics, Inc.
15 Volvo Drive
Rockleigh, NJ 07647
1-888-CRESTRON

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Docking Station: ST-DSN

Introduction

Functions and Features

The ST-DSN is a microprocessor-based docking station designed to fast charge the ST-BTPN (rechargeable battery pack). The ST-DSN is also available in an international version, the STI-DSN. All features are identical with the exception of the power pack (PWI-1215). Refer to “Power Source” on page 5 for more information. The ST-DSN can also fast charge the older ST-BTP rechargeable battery pack. For related information on the ST-BTP, consult the ST-BTP Operations Guide (Doc. 5746). The latest version of the guide can be obtained from the Downloads | Product Manuals section of the Crestron website (www.crestron.com).

A fast charge occurs in one of three possible configurations and can take 2.7 to 6 hours (depending on whether the ST-BTPN is fully discharged and the amount of current drawn during the charging process). Each situation is detailed in “Using the ST-DSN to Charge the ST-BTPN (Rechargeable Battery Pack)” on page 5.

1. The ST-DSN charges the ST-BTPN alone.
2. The ST-DSN charges the ST-BTPN while the rechargeable battery pack is installed in a touchpanel and the touchpanel is not in use.
3. The ST-DSN charges the ST-BTPN while the rechargeable battery pack is installed in a touchpanel and the touchpanel is in use.

NOTE: Configuration 2 and 3 depend on the type of Crestron® wireless touchpanel in use; for example, the ST-1700C or ST-1550C.

A second function of the ST-DSN is to preserve the charge of a ST-BTPN. As long as the contacts of the ST-BTPN and the ST-DSN remain together, the ST-DSN “trickle charges” the ST-BTPN in an attempt to maintain the ST-BTPN at full charge for optimum performance. The duration of a “trickle charge” is continuous as long as the ST-BTPN is not fully charged.

NOTE: For simplicity, ST-DSN will be used in this guide for both the ST-DSN and the STI-DSN, except where noted.

Functional Summary

- | |
|--|
| <ul style="list-style-type: none">• Microprocessor-based• Fast charge of battery pack |
|--|

Specifications

The following table provides specifications for the ST-DSN.

Specifications for the ST-DSN

SPECIFICATION	DETAILS
Input operating voltage ¹	12 VDC, 1500mA
Dimensions and Weight	Height: 0.935 in (2.375cm) Width: 6.715 in (17.056 cm) Depth: 6.765 in (17.183 cm) Weight: 15.8 oz (0.49 kg)

¹ The ST-DSN requires the Crestron PW-1215 or PWI-1215 power pack. Refer to “Power Source” on page 5 for more information. The input operating voltage includes the PWI-1215.

Physical Description

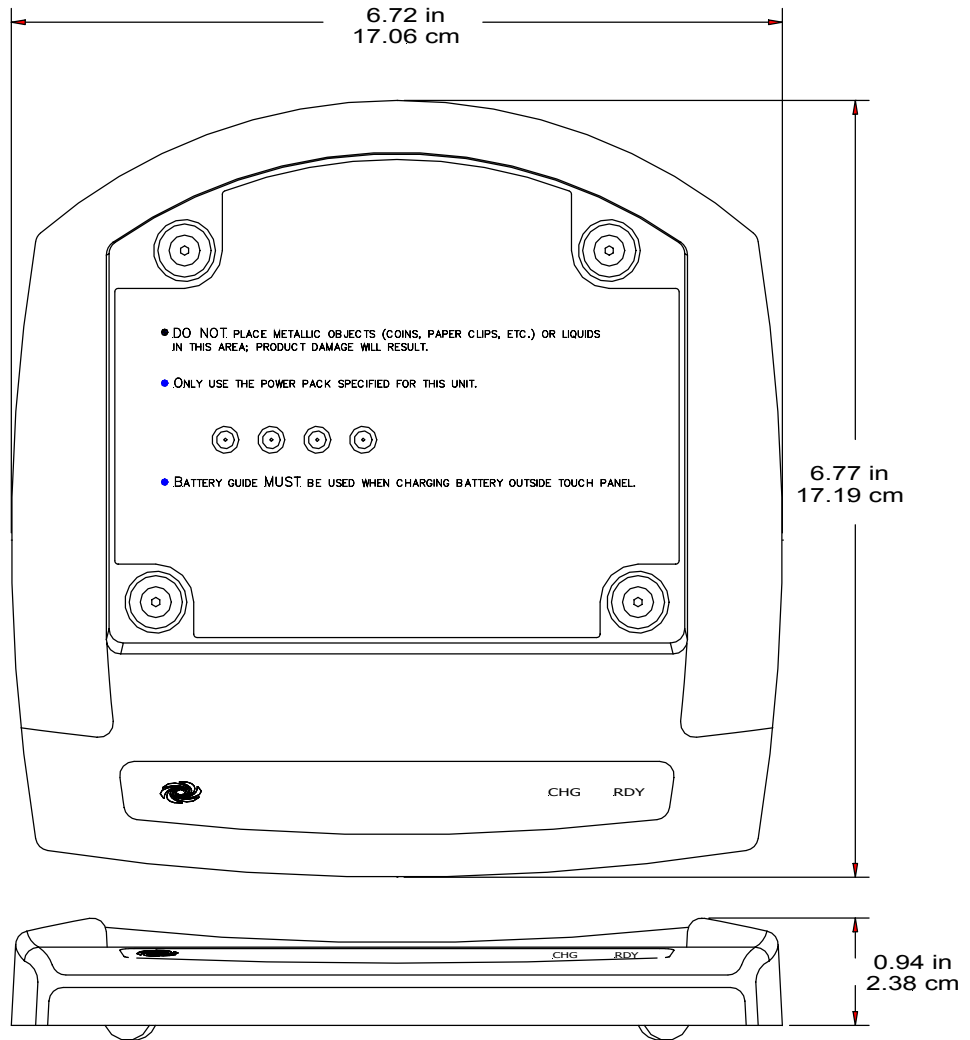
The ST-DSN, shown below and on the next page, is housed in a black enclosure with labels on the front panel and a cavity (docking area). On the front panel are three LEDs for indicating the unit’s current status. The cavity accommodates either the ST-BTPN with optional ST-DSN charging guide or a Crestron wireless touchpanel with ST-BTPN installed. Power is connected at the bottom of the unit. Four rubber feet on the base of the ST-DSN provide stability and prevent slippage while on a flat surface.

Physical View



Physical View (continued)

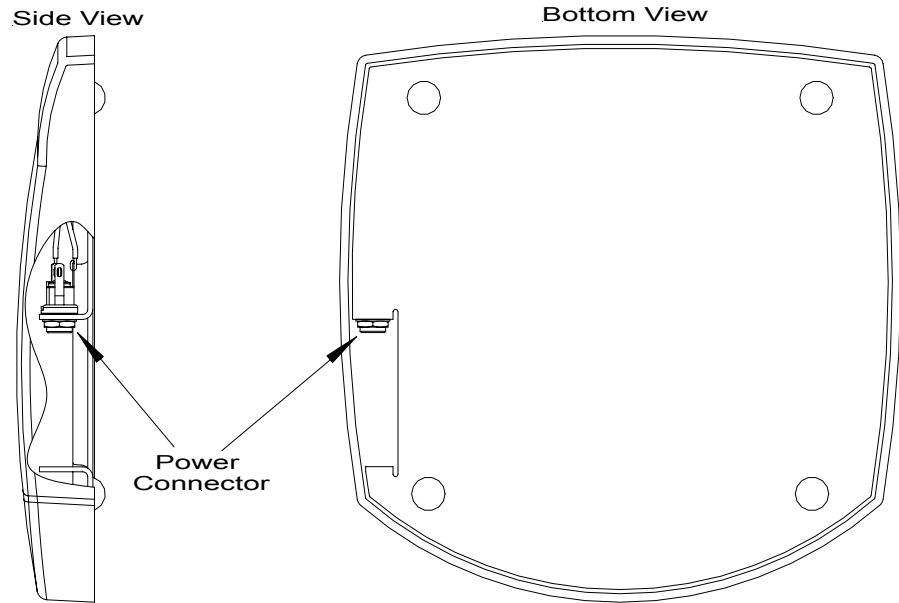
Shown without charging guide



DC Power Connector Port

The DC power connector port is used to supply 12VDC power via the external power pack.

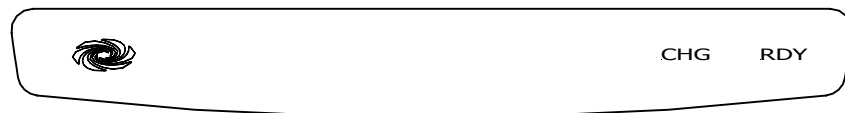
ST-DSN Power Port



ST-DSN Indicators

Three LED indicators are located on the front panel of the ST-DSN. Refer to the illustration and descriptions after this paragraph.

ST-DSN Indicators



(Power)

Illuminates green when power is provided to the ST-DSN via the external power pack.

CHG (Charge)

Illuminates when a ST-BTPN is inserted in the ST-DSN cavity and their contacts meet. The LED remains ON while the rechargeable battery pack is charging.

If the CHG LED blinks every second, it is in a "charge pending" state. This state indicates that the rechargeable battery pack may be too hot or cold, or that it has extremely low voltage and a "trickle charge" is necessary before a fast charge can be applied. In either case, the ST-DSN monitors the ST-BTPN status and waits for the correct conditions to start a fast charge. The LED remains ON during a fast charge.

RDY (Ready)

Illuminates when the ST-BTPN in the ST-DSN cavity is fully charged.

Industry Compliance

As of the date of manufacture, the ST-DSN has been tested and found to comply with specifications for CE marking and standards per EMC and Radiocommunications Compliance Labelling.



NOTE: This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Setup

Power Source

The DC power socket connector on the bottom of the unit is used to supply power via an external power pack that Crestron supplies with the ST-DSN. It is the **PW-1215** (110v USA and Canada) or **PWI-1215** (220v International). If an external power pack other than these Crestron models is used, verify that it meets the required specifications and polarity as shown below.

Power Pack Specifications

CRESTRON POWER PACK	INPUT SPECS	OUTPUT SPECS
PW-1215	120VAC, 60Hz, 35W	12VDC, 1500mA
PWI-1215	220VAC, 50Hz, 35W	12VDC, 1500mA, 18VA

Power Pack Polarity



Using the ST-DSN to Charge the ST-BTPN (Rechargeable Battery Pack)

WARNING: The ST-BTPN is shipped fully discharged. Charge the ST-BTPN in a well-ventilated area away from sparks, open flame, or smoke.

WARNING: Avoid damage to the ST-BTPN and possible physical harm, use only the specified external power pack PW-1215 (110v) or PWI-1215 (220v) or equivalent when charging with the ST-DSN.

There are three possible methods of charging the ST-BTPN with the ST-DSN. All methods are considered fast charging and take between 2.7 and 6 hours for a fully discharged ST-BTPN. Using the touchpanel during charging may take up to 6 hours and is only permissible with certain Crestron wireless touchpanel models.

NOTE: For more information on charging times, refer to the latest revision of the Rechargeable Battery Pack Operations & Installation Guide (Doc. 6088), “Specifications” section.

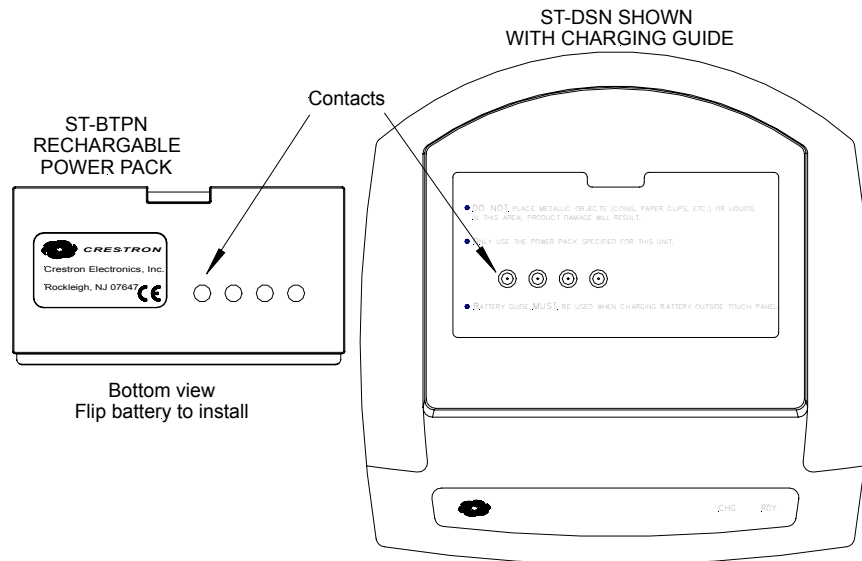
NOTE: Make sure that the contacts of the ST-DSN and ST-BTPN touch. The CHG LED illuminates while the ST-BTPN is charging. When the ST-BTPN is fully charged, the CHG LED goes out and the RDY LED illuminates.

Method 1: ST-BTPN Alone

NOTE: Use the optional charging guide when charging the ST-BTPN alone (while it is not installed in the touchpanel).

Position the charging guide into the ST-DSN cavity. Position the ST-BTPN, by itself, into the ST-DSN cavity to automatically initiate charging. Refer to the illustration below to confirm positioning.

Charging the ST-BTPN (Alone)

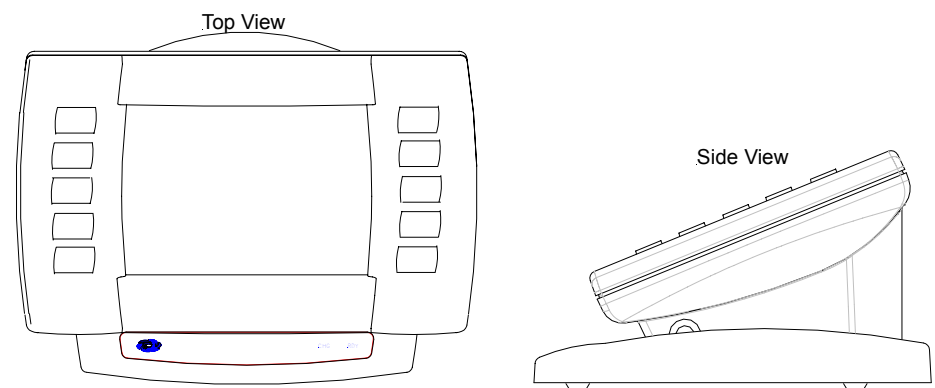


Method 2: ST-BTPN Installed in an Inactive Touchpanel

NOTE: Do not use the optional charging guide when charging the ST-BTPN while installed in the touchpanel.

NOTE: This method only applies to the ST-1550C and ST-1700C wireless touchpanels.

In this method, the ST-BTPN is properly installed into the touchpanel. Position the touchpanel into the ST-DSN cavity, as shown on the next page. As long as the touchpanel remains inactive (OFF), a fully discharged ST-BTPN fully charges in 2.7 hours.

TouchPanel Properly Positioned (ST-1700C shown)***Method 3: ST-BTPN Installed in an Active Touchpanel***

This method is identical to method 2, except that the touchpanel is active (ON) while charging. As a result, the time to fully charge a discharged ST-BTPN can take up to 6 hours.

Problem Solving

Troubleshooting

The table below provides corrective action for possible trouble situations. If further assistance is required, please contact a Crestron customer service representative.

ST-DSN Troubleshooting

TROUBLE	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
Green power LED does not illuminate.	ST-DSN is not receiving power.	Confirm that power pack is plugged in outlet and connector is plugged in the ST-DSN power connector port.
Red CHG LED blinks once per second.	ST-DSN is in 'charge pending' mode.	The rechargeable power pack is either too hot/cold or has extremely low voltage. The ST-DSN begins a fast charge of ST-BTPN as soon as conditions are favorable (temperature of ST-BTPN is between 32-104° F (0-40° C).
Red CHG and RDY LEDs blink four times per second.	ST-DSN has intermittent contact with the ST-BTPN.	Properly position the ST-BTPN in the ST-DSN cavity. Clean contacts with a dry, lint free cloth.
	Incorrect external power pack being used.	Verify that power pack is the supplied power pack (i.e., Crestron part no. PW-1215 (110vac) or PWI-1215 (230vac).
Red CHG and RDY LEDs oscillate back and forth.	Hardware Error.	Remove power from ST-DSN. Contact Crestron customer service.
Power LED does not illuminate.	Power pack not functioning.	Verify output (12VDC min.) Replace power pack.
	Power pack not plugged in unit and/or wall outlet.	Plug power pack in unit and/or wall outlet.
Power LED illuminates, but battery does not charge.	Incorrect external power pack being used.	Verify that power pack is the supplied power pack (i.e., Crestron part no. PW-1215 (110vac) or PWI-1215 (230vac).

Further Inquiries

If you cannot locate specific information or have questions after reviewing this guide, please take advantage of Crestron's award winning customer service team by calling the Crestron corporate headquarters at 1-888-CRESTRON [1-888-273-7876]. For assistance in your local time zone, refer to the Crestron website (www.crestron.com) for a listing of Crestron worldwide offices.

Future Updates

As Crestron improves functions, adds new features, and extends the capabilities of the ST-DSN, additional information may be made available as manual updates. These updates are solely electronic and serve as intermediary supplements prior to the release of a complete technical documentation revision.

Check the Crestron website periodically for manual update availability and its relevance. Updates are identified as an “Addendum” in the Download column.

Return and Warranty Policies

Merchandise Returns / Repair Service

1. No merchandise may be returned for credit, exchange, or service without prior authorization from CRESTRON. To obtain warranty service for CRESTRON products, contact the factory and request an RMA (Return Merchandise Authorization) number. Enclose a note specifying the nature of the problem, name and phone number of contact person, RMA number, and return address.
2. Products may be returned for credit, exchange, or service with a CRESTRON Return Merchandise Authorization (RMA) number. Authorized returns must be shipped freight prepaid to CRESTRON, 6 Volvo Drive, Rockleigh, N.J., or its authorized subsidiaries, with RMA number clearly marked on the outside of all cartons. Shipments arriving freight collect or without an RMA number shall be subject to refusal. CRESTRON reserves the right in its sole and absolute discretion to charge a 15% restocking fee, plus shipping costs, on any products returned with an RMA.
3. Return freight charges following repair of items under warranty shall be paid by CRESTRON, shipping by standard ground carrier. In the event repairs are found to be non-warranty, return freight costs shall be paid by the purchaser.

CRESTRON Limited Warranty

CRESTRON ELECTRONICS, Inc. warrants its products to be free from manufacturing defects in materials and workmanship under normal use for a period of three (3) years from the date of purchase from CRESTRON, with the following exceptions: disk drives and any other moving or rotating mechanical parts, pan/tilt heads and power supplies are covered for a period of one (1) year; touchscreen display and overlay components are covered for 90 days; batteries and incandescent lamps are not covered.

This warranty extends to products purchased directly from CRESTRON or an authorized CRESTRON dealer. Purchasers should inquire of the dealer regarding the nature and extent of the dealer's warranty, if any.

CRESTRON shall not be liable to honor the terms of this warranty if the product has been used in any application other than that for which it was intended, or if it has been subjected to misuse, accidental damage, modification, or improper installation procedures. Furthermore, this warranty does not cover any product that has had the serial number altered, defaced, or removed.

This warranty shall be the sole and exclusive remedy to the original purchaser. In no event shall CRESTRON be liable for incidental or consequential damages of any kind (property or economic damages inclusive) arising from the sale or use of this equipment. CRESTRON is not liable for any claim made by a third party or made by the purchaser for a third party.

CRESTRON shall, at its option, repair or replace any product found defective, without charge for parts or labor. Repaired or replaced equipment and parts supplied under this warranty shall be covered only by the unexpired portion of the warranty.

Except as expressly set forth in this warranty, CRESTRON makes no other warranties, expressed or implied, nor authorizes any other party to offer any warranty, including any implied warranties of merchantability or fitness for a particular purpose. Any implied warranties that may be imposed by law are limited to the terms of this limited warranty. This warranty statement supercedes all previous warranties.

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Crestron Electronics, Inc.
15 Volvo Drive Rockleigh, NJ 07647
Tel: 888.CRESTRON
Fax: 201.767.7576
www.crestron.com

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