# tech bulletin NO. E2061TB

## INFORMATION FOR DISTRIBUTORS

August 7, 1997

**TO: ALL EDUCATIONAL DISTRIBUTORS - U.S., CANADA & EXPORT**

**SUBJECT: SELECTING AN UNINTERRUPTIBLE POWER SUPPLY (OR UPS) FOR TELECENTER® SYSTEM PRODUCTS**

An Uninterruptible Power Supply (or UPS) can be used to supply power to Telecenter® systems and all accessories so telephone lines and other Telecenter equipment stay operational during brownouts and blackouts. A number of manufactures make Uninterruptible Power Supplies (UPS's) for this type of application. UPS's are compact boxes containing batteries, sensors and surge protectors that react when electrical power is disrupted. This means the Telecenter systems, intercom equipment, and all electrical components can stay operational when the building loses power.

The chart below contains the power requirements for various Rauland-Borg products. Simply add the power requirements for products used, to calculate the total power required for the entire system to operate. Then choose an appropriate UPS from the UPS charts supplied. For example, if you have a Telecenter V (130 watts), a DSI unit (320 watts), and a DAX120 intercom amplifier (*79 watts), add all the power requirements (130+320+79=529 watts) and select an applicable UPS unit with at least enough power to keep your system working during a power loss. In the above example a BC PRO 850 would work well for about 6 minutes or an Alpha Technologies model CFR 1000 would work for longer periods of time.

Rauland-Borg suggests that all Telecenter equipment be protected by AC surge suppressers. If you buy a UPS without a built-in surge suppresser, then purchase a separate one. Make sure the surge suppresser is rated for at least 300 joules.

Cortelco recommends only using an *Alpha Tech* UPS with the EDSI and CDSI. Although the *Alpha Technologies* chart only describes the power requirements for the *Cortelco Millennium* product in particular, it does not mean *Alpha Tech* UPS's won't work equally as well for any combination of equipment. Take into consideration the total watts necessary to run the system and then choose an appropriate UPS. *The Alpha Tech* chart lists UPS units and their runtime in relation to power being used. *Alpha Technologies* can be reached at:

Alpha Technologies
3767 Alpha Way
Bellingham, WA 98226
1 (800) 421-8089

Tripp-Lite makes a number of UPS units to accommodate your Telecenter system and all accessories. The following chart lists different *Tripp-Lite* products, their output power capacity, and full/half load

run times. *Tripp-Lite* power supplies can be purchased through a wide variety of distribution channels. All *Tripp-Lite* UPS's are UL and CUL listed. *Tripp-Lite* can be contacted at:

Tripp-Lite Worldwide
500 N. Orleans
Chicago, IL 60610
1 (312) 755-5401

## Rauland-Borg Component Power Requirements

| TELECENTER® COMPONENTS | WATTS REQUIRED | COMMENTS |
|---|---|---|
| TCV W/1 VCM | 130 | |
| TC21 W/1 VCM | 130 | |
| TC2161 (BART) | 50 | |
| 2524 or 2490 | 17 | |
| CTL1 | 15 | |
| TC4160 (VCM2) | 50 | |
| TELECENTER CDSI | 320 | |
| TELECENTER EDSI | 200 | 200 W Power Supply |
| TELECENTER EDSI | 400 | 400 W Power Supply |
| MR100 | 2 | |
| MCZ300 | 95 | |
| MCB300 | 15 | |
| MCC300 | 70 | |
| MCX300 | 16 | |
| MRC7600 | 2 | |
| TC4181 | 2 | |
| TC4182 | 2 | |
| TC4183 | 2 | |
| DAX60 | *45 | AC POWER CONSUMPTION<br>Idle: 12 watts Full power: 175 watts |
| DAX120 | *79 | AC POWER CONSUMPTION<br>Idle: 12 watts Full power: 345 watts |
| FAX120 | *76 | AC POWER CONSUMPTION<br>Idle: 15 watts Full power: 320 watts |
| FAX250 | *164 | AC POWER CONSUMPTION<br>Idle: 60 watts Full power: 580 watts |

* This value assumes that the page amplifier is used only 20% of the time. Amplifiers use a considerable amount of power when in use. If the amplifier will be used longer than 20% of the time, use a multiplier for estimating wattage.

Note: Power for the following items is included with the basic Telecenter system: TC4110, TC4155, TC2113, TC2114, TC4190, TC2150

## TRIPP-LITE PRODUCT CHART

| **Tripp-Lite Model** | **Available Power (watts)** | **Surge Suppression (joules)** | **Number Of Outlets** | **Back-up Time Full Load (min.)** | **Back-up Time Half Load (min.)** |
|---|---|---|---|---|---|
| BC PERS 280 | 175 | 300 | 2 | 5 | 17 |
| BC PERS 420 | 265 | 300 | 2 | 5 | 17 |
| BC PRO 450 | 280 | 300 | 4 | 5 | 17 |
| BC PERS 500 | 315 | 300 | 4 | 10 | 28 |
| BC PRO 550 | 345 | 300 | 4 | 8 | 24 |
| BC PRO 675 | 425 | 300 | 4 | 5 | 17 |
| BC PRO 850 | 570 | 400 | 4 | 6 | 21 |
| BC PRO 1050 | 705 | 400 | 6 | 7 | 23 |
| BC PRO 1400 | 940 | 400 | 6 | 8 | 21 |

# ALPHA TECHNOLOGIES PRODUCT CHART

(Recommended by Cortelco for Telecenter® EDSI and CDSI Products)

AMPS X 120V X 0.7 = WATTS

| AMPS/ WATTS | 30 MIN. | 1 HR. | 2 HRS. | 4 HRS. | 8 HRS. | 12 HRS. |
|---|---|---|---|---|---|---|
| 1/80 | | ALI 450 | ALI 600 | AWM 600 | AWM 600 | AWM 600 |
| 2/170 | | ALI 600 | AWM 600 | AWM 600 + 1 WBP | AWM 600 + 2 WBP | AWM 600 + 3 WBP |
| 6/500 | | AWM 600 + 1 WBP | AWM 600 + 2 WBP | AWM 600 + 3 WBP | AWM 600 + 5 WBP | AWM 600 + 7 WBP |
| 8/670 | CFR 1000 | CFR 1000 + 1 EBP24C | CFR 1000 + 1 EBP24C | CFR 1000 + 1 EBP24E | CFR 1000 + 2 EBP24E | CFR 1000 + 2 EBP24E |
| 10/840 | CFR 1500 | CFR 1500 + 1 EBP48A | CFR 1500 + 1 EBP48A | CFR 1500 + 1 EBP48E | CFR 1500 + 2 EBP48E | CFR 1500 + 1 EBP1275-48R |
| 12/1000 | CFR 1500 | CFR 1500 + 1 EBP48A | CFR 1500 + 1 EBP48A | CFR 1500 + 1 EBP48E | CFR 1500 + 2 EBP48E | CFR 1500 + 1 EBP1275-48R |
| 14/1170 | CFR 2000 | CFR 2000+1 EBP48A | CFR 2000 + 1 EBP48E | CFR 2000 + 2 EBP48E | CFR 2000 + 2 EBP48E | CFR 2000 + 1 EBP1275-48R |
| 16/1340 | CFR 2000 | CFR 2000 + 1 EBP48A | CFR 2000 + 1 EBP48E | CFR 2000 + 2 EBP48E | CFR 2000 + 1 EBP1275-48R | CFR 2000 + 1 EBP1275-48R |
| 18/1500 | CFR 2000 | CFR 2000 + 1 EBP48A | CFR 2000 + 1 EBP48E | CFR 2000 + 2 EBP48E | CFR 2000 + 1 EBP1275-48R | CFR 2000 + 1 EBP48E + 1 EBP1275-48R |
| 20/1680 | CFR 2500 | CFR 2500 + 1 EBP48A | CFR 2500 + 1 EBP48E | CFR 2500 + 1 EBP48E | CFR 2500 + 1 EBP1275-48R | CFR 2500 + 1 EBP48E + 1 EBP1275-48R |
| 22/1850 | CFR 2500 | CFR 2500 + 1 EBP48A | CFR 2500 + 1 EBP48E | CFR 2500 + 1 EBP48E | CFR 2500 + 1 EBP1275-48R | CFR 2500 + 1 EBP48E + 1 EBP1275-48R |
| 24/2000 | CFR 3000 | CFR 3000 + 1 EBP48A | CFR 3000 + 1 EBP48E | CFR 3000 + 2 EBP48E | CFR 3000 + 1 EBP1275-48R | CFR 3000 + 1 EBP48E + 1 EBP1275-48R |
| 26/2180 | CFR 3000 | CFR 3000 + 1 EBP48A | CFR 3000 + 1 EBP48E | CFR 3000 + 2 EBP48E | CFR 3000 + 1 EBP1275-48R | CFR 3000 + 2 EBP48E + 1 EBP1275-48R |
| 28/2350 | CFR 5000 | CFR 5000 + 1 EBP48I | CFR 5000 + 1 EBP48M | CFR 5000 + 2 EBP48M | CFR 5000 + 1 EBP1275-48B | CFR 5000 + 2 EBP48M + 1 EBP1275-48B |
| 30/2520 | CFR 5000 | CFR 5000 + 1 EBP48I | CFR 5000 + 1 EBP48M | CFR 5000 + 2 EBP48M | CFR 5000 + 1 EBP48M + 1 | CFR 5000 + 2 EBP48M + 1 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | | EBP1275-48B | EBP1275-48B |

Notes:
1. Actual run times may vary according to type of load, age of batteries, temperature and other factors.
2. UPS units with 208-240VAC input are available.