

Number One
Air Conditioning
Maker

Carrier

Advance Product Data 50HQ,VQ

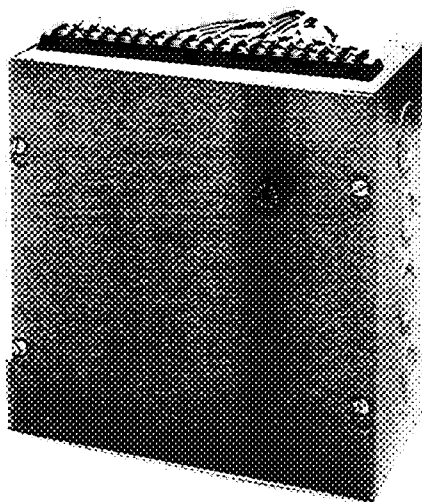
Carrier Parkway • Syracuse, N.Y. 13221

CARRIER'S WATER SOURCE HEAT PUMPS S.O.S. SYSTEM

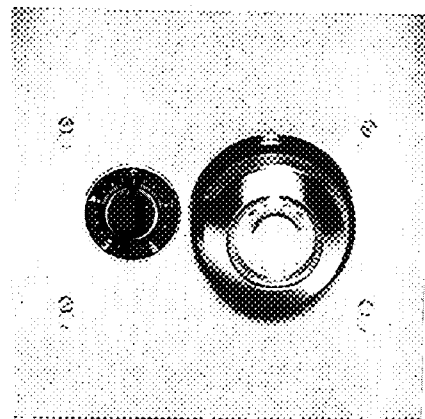
CENTRAL TIME CLOCK



CENTRAL SETBACK PANEL



SATELLITE SETBACK BOX



WE KEPT OUR PROMISE —WE MEAN BUSINESS

Book	1	4
Tab	5a	5a

3/85

PC 111

Form 50HQ,VQ-6APD New

Manufacturer reserves the right to discontinue, or change at any time, specifications or designs without notice and without incurring obligations.

Printed in U.S.A.

Catalog No. 525-021

Carrier's new SOS System is simply - unbeatable. For small Water Source Heat Pump Systems that require scheduled night setback, timed override and staggered start control, consider some of the alternatives available:

- A full scale EMS System that has too much sophistication, and a much greater price tag. Not even close!
- A programmable thermostat for each WSHP unit. If there were only a handful of units, this might be practical. When you have 20-30 units on the system, even programmable thermostats become too expensive.
- A small scale system consisting of a central time clock connected to remote nite set back relays, override timers and low limit thermostats (all usually wired one relay, timer and thermostat per WSHP unit). Sounds like its a step in the right direction, but consider the wiring costs and the redundant hardware not to mention the lack of any staggered start protection.

The new SOS package is a more practical & lower cost system capable of overcoming the drawbacks of other control systems.

- Central time clock with back-up for time of day on/off control.
- Central staggered start control to eliminate peak demand charges during morning start-up or following a power failure.
- Remote satellite units for nite setback protection and timed override. One satellite unit may control up to 5 units to reduce hardware and field wiring costs.
- Low temperature (night-set back) protection via multiple thermostats throughout a building may be advisable if, for example, the building orientation/configuration causes extreme cold spots during the night.

- One SOS System can control up to 30 WSHP units. An auxiliary relay exists to slave off another master panel - or up to another 30 units, and so on.
- Remote satellites come in a variety of control options for system design flexibility.
 - Nite set back relay and override timer
 - Nite set back relay and NSB thermostat
 - Nite set back relay, override timer and NSB thermostat
- The SOS System has been designed, tested and sourced from Carrier. Single source responsibility is important. Carrier distributors don't need the hassles of WSHP - control system interface problems. The SOS System is assured to install and operate reliably and cost effectively.

Consider the SOS System for -

- High rise office building where space is leased on a floor by floor basis where tenants pay their own utility bills.
- 2,3,4 Story office buildings where the building owner/developer and/or occupant can't justify the cost of an energy management system.
- Schools, universities.
- Hotels/motels - for lobbies, meeting rooms, etc.

**WE
MEAN
BUSINESS**

CENTRAL TIME CLOCK



FEATURE

7-Day calendar dial with 3 ON/OFF schedules per day.

4 P.D.T. switching action

Skip-A-Day(s) Capability

Accessible Knock-outs and large terminal screws.

UL listed enclosure with locking latch cover capabilities.

Heavy duty, synchronous, quiet, self-lubricated motor with 16 hour spring carry-over.

Manual ON/OFF override switch

BENEFIT

Provides maximum flexibility for any building needs.

Allows control of master setback boxes additional control of exhaust fans, lights, etc.

Allows greater energy saving.

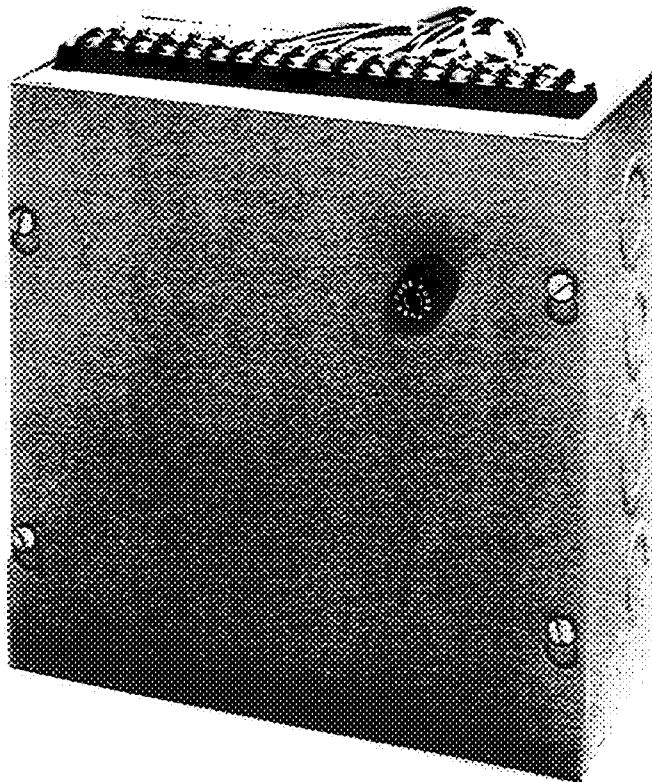
Facilitates field wiring; reduces installation costs.

Provides safety during operation.

Reliable and maintenance free operation even during power failures

Provides override capability without disturbing preset schedule.

CENTRAL SETBACK PANEL



FEATURE

Compact design
UL approved enclosure

Accessible knockouts and terminal boards for
115 and 24 volt transformer
Connections factory installed

Sequential starting relays
Factory installed

Satellite setback interface

Factory installed
Auxiliary connection

BENEFIT

Occupies little wall space
Safe and reliable operation.

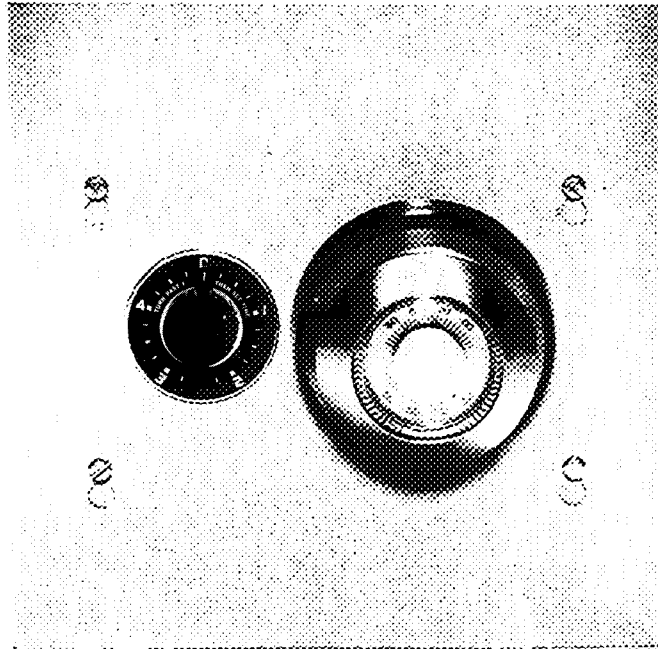
Facilitates field wiring; reduces cost
of installation.

Sequences up to 6 satellites to prevent
brownout and peak demand charges.

Designed to reduce system wiring cost;
and provide remote setback and
override control flexibility.

For add-on flexibility on larger buildings,
System can be expanded to multiple
setback panels.

SATELLITE SETBACK BOX



FEATURE

Compact, flush mounted design

Accessible knockouts and terminal boards
Class 2 wiring required

Control relays factory wired

0-5 Hour adjustable manual override timer
(optional)

45°-75°F Adjustable setback thermostat
with locking cover (optional)

BENEFIT

Occupies little wall space, recesses
into wall for neat appearance.

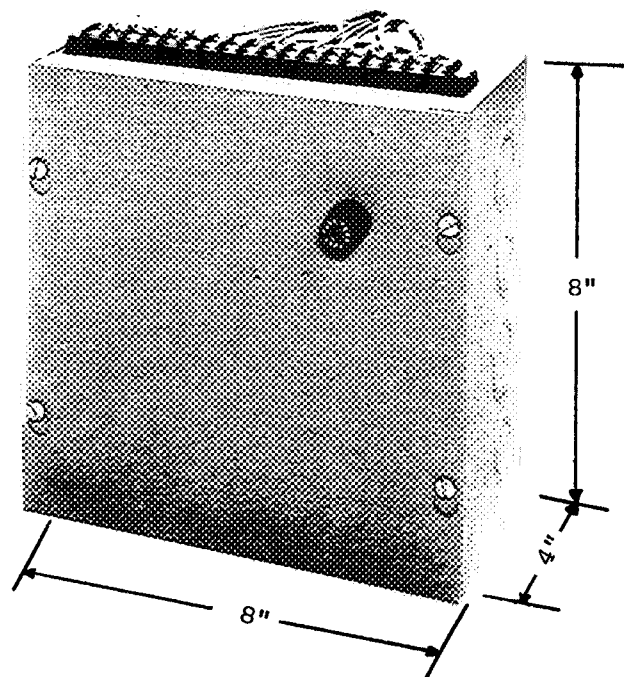
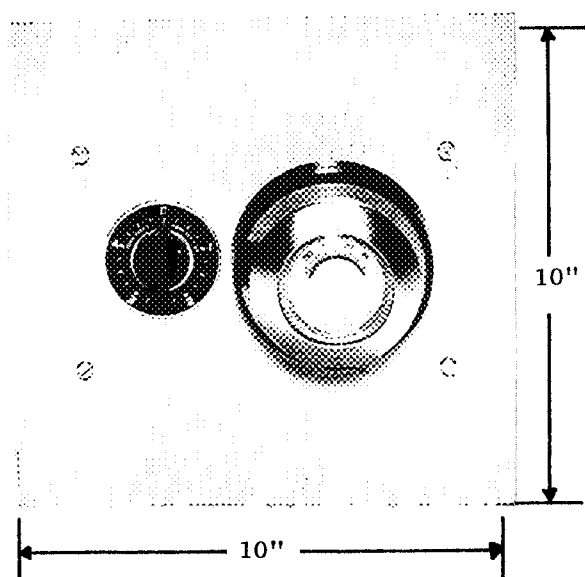
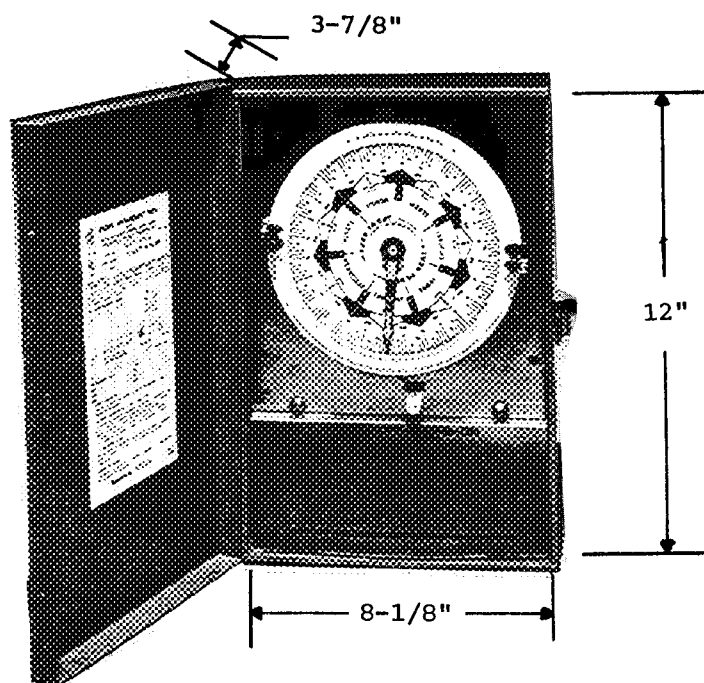
Facilitates field wiring, reduces
installation costs.

Satellite box can control up to 5
individual WSHP units.

Added tenant comfort and flexibility -
Allows tenant to override time clock
signal during weekend or after hour
schedules.

Provides building low temperature
protection by overriding time clock signal.

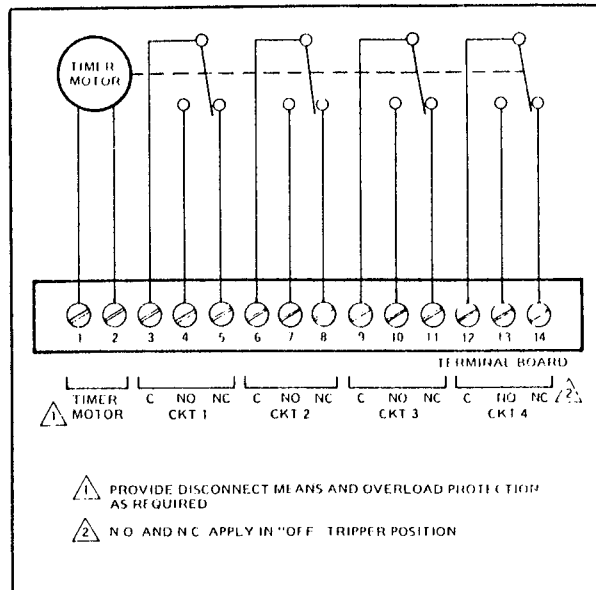
PHYSICAL DIMENSIONS



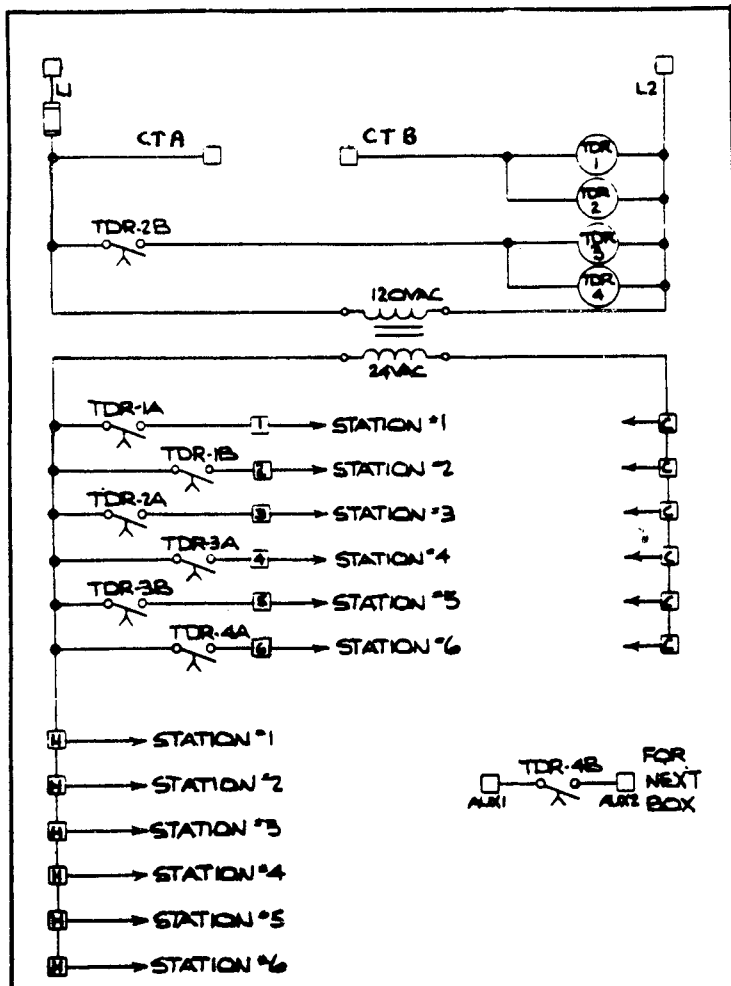
NOTE: DIMENSIONS FOR RECESSED BOX
ARE $8" \times 8" \times 3"$

WIRING DIAGRAMS

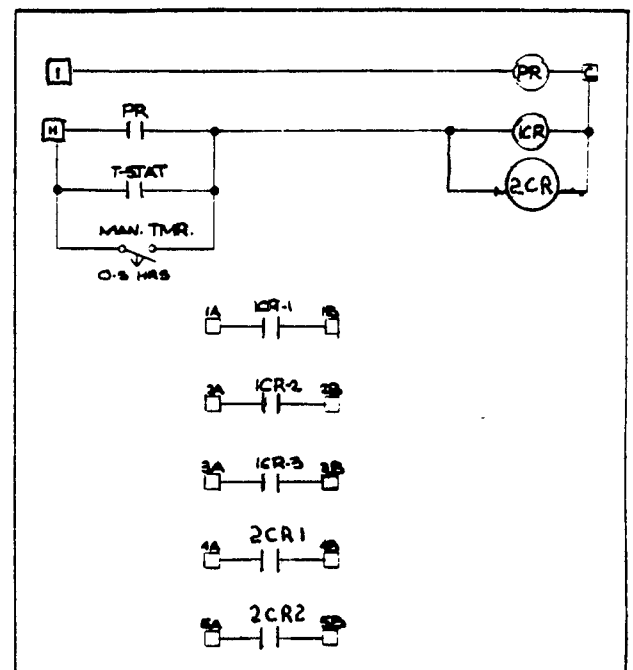
CENTRAL TIME CLOCK



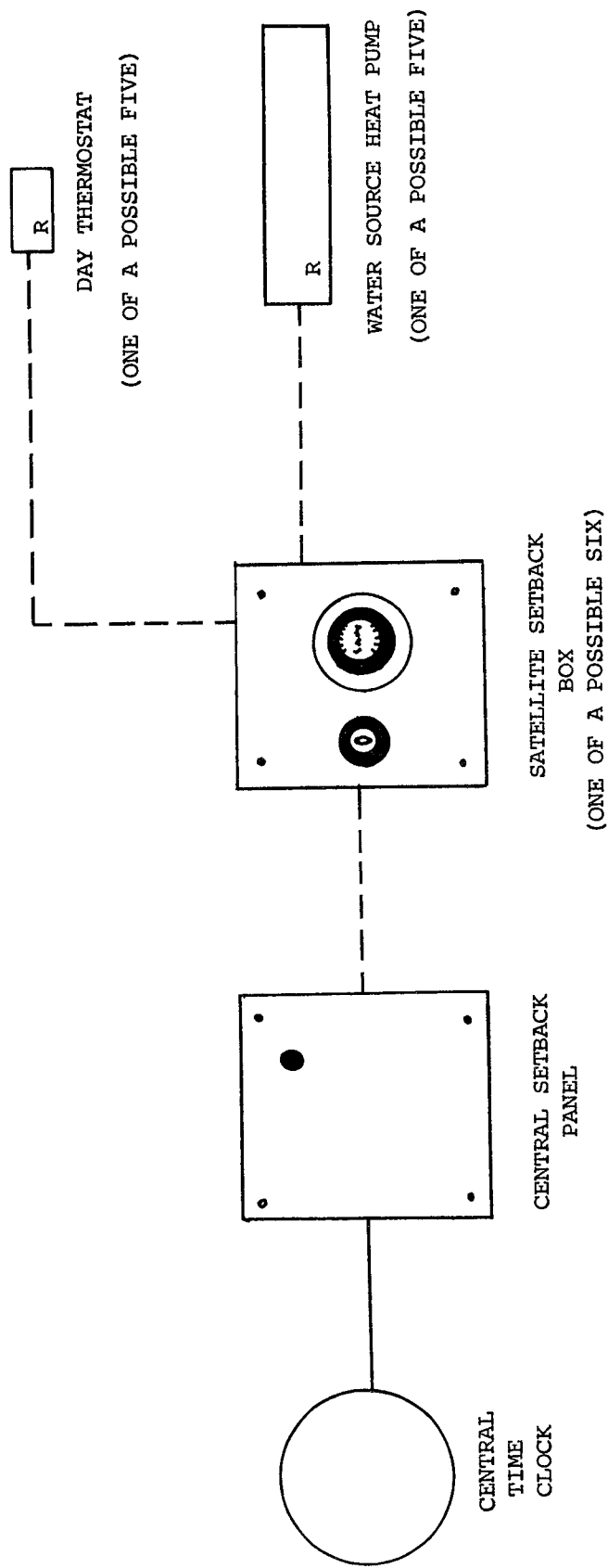
CENTRAL SETBACK PANEL



SATELLITE SETBACK BOX



TYPICAL WIRING DIAGRAM



*NOTE: "R" TERMINAL ON W.S.H.P. AND DAY THERMOSTAT MUST BE USED WHEN WIRING INTO SATELLITE SETBACK BOX.

- - - - 24 VOLT A.C. CLASS 2 WIRING
 _____ 115 VOLT A.C. WIRING