

WIRELESS ENABLED 2 ZONE PROGRAMMER AND THERMOSTATS

SUNDIAL RF² PACK 5

FEATURES

- Energy saving †TPI control
- Wireless enabled upgrade
- Two way wireless communication
- Wireless signal strength indicator

ST9520C Wireless Enabled Programmer

- Built in Economy or Comfort programmes
- LoT™ display for easy programming
- Fits on industry standard backplate

DT92E Wireless Thermostat

- ECO setback function
- Frost protection
- Tabletop stand supplied
- Battery powered - no wiring



OPTIONS

- OpenTherm** Boiler Control (with suitable OpenTherm Boiler)
- Remote Boiler control with wireless relay box (BDR91 supplied separately)
- Remote Valve control with wireless relay box (BDR91 supplied separately)
- Optimum Start*
- Delayed Start**
- Optimum Stop***
- 'OFF' setting adjustable from 5°C to 16°C
- Service Interval reminder with variable levels of action
- Installer set up mode - controls can be matched to the system and user



APPLICATION

In a heating system which has no room thermostat, or the system needs upgrading to 2 heating zones, the existing wiring can be used to provide Boiler Interlock by fitting Sundial RF² Pack 5.

This has a full programmer, with independent zone 1 and zone 2 channels and a built in wireless transceiver to enable the wireless room thermostats, maintaining the traditional layout of separate time control and thermostats. It can also be used on new systems.

Because the thermostats and the programmer communicate, energy saving and operating benefits are also enabled:

TPI control: Time Proportional and Integral (TPI) control is a method of calculating the demand from a room thermostat, controlling the boiler so that it fires for shorter periods as the temperature approaches the set point. This can offer savings of up to 10% of energy consumption (in a single cycle steady state test).

OpenTherm boiler control: OpenTherm provides more precise control on the boiler through the control of the gas valve. It allows the amount of heat provided by the boiler to be controlled to match the varying demand signal. By reducing the flow temperature to a minimum as it leaves the boiler, the return temperature is kept below the dew point (55°C) whenever possible, thus allowing the boiler to operate in condensing mode.

*Optimum Start: To save energy, let the controls work out when to come on to suit when you want to be warm. Every day the boiler will start at the latest possible moment depending on the weather.

**Delayed Start: Once you have programmed your earliest start time, the controls will delay the boiler firing time on warmer days, when it is possible to save energy.

***Optimum Stop: Saves energy and money by switching off before the normal programme time whenever possible.

Honeywell

WIRELESS ENABLED CONTROLS

Ordering Specification

Y9520Z1007 comprising:
ST9520C wireless enabled programmer
DTS92E wireless room thermostat x 2

Optional Extras

BDR91T1004 Receiver

Installation

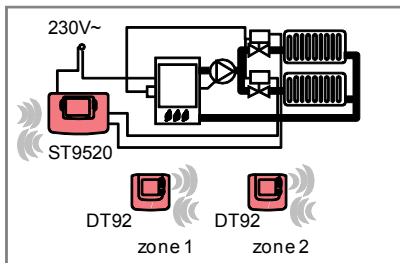
Simply remove the old programmer and replace with ST9520C. This enables the wireless thermostats (DT92E) to be added to the system.

Otherwise install as per installation instructions supplied with product. Remote boiler and remote valve installations possible with wireless relay boxes (supplied separately).

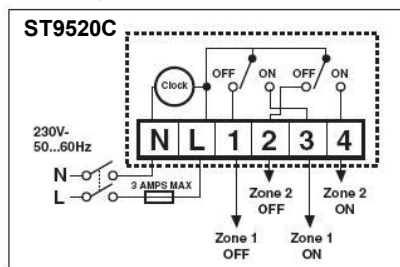
The ST9520C and DT92E are radio frequency devices and for best performance should be installed in a clear space. Where possible leave the ST9520C at least 30cm distance from any metal objects including wall boxes and at least 1m from any other electrical equipment.

The DT92E are free to be installed in suitable locations when the signal strength is high.

Schematic Layout (typical)



Wiring



Just replace existing timer, fits directly onto many other timer backplates. No power supply required to cylinder sensor.

For dimensions see catalogue pages for ST9100, L641A and BDR91 models. (ST9120C dimensions are the same as the ST9100 models. CS92A dimensions are the same as L641 and BDR91).

Specification

Pack 5

RF Operation Band	: ISM (868.0 to 868.6) Mhz, 1% duty cycle
RF Communication Range	: Typically 30m in residential building
RF Communication Technology	: Two way short, high rate transmissions to minimise air time/avoid interference
RF Blocking Immunity	: Receiver class 2
Operating Temperature Range	: 0 to 40°C
Operating Humidity Range	: 10 to 90% r.h, non-condensing
Storage Conditions	: -20 to 55°C
	: 10 to 90% r.h, non-condensing
Standards	: CE marked
IP Rating	: IP30
ST9520C	
Switch Rating	: 3(3)A max at 230Vac

Switch Type	: 2x Single pole, double throw (SPDT) relay
Power Supply	: 230Vac 50Hz 10W
Power Reserve	: Built in battery maintains factory set date & time. Backup super capacitor retains real time for more than 1.5 hours
	: All settings and parameters stored in NVRAM will be retained indefinitely
Wiring	: Wiring terminals with captive cage clamps, accepting two wires each up to 2.5mm ²
Time Setting	: Time of day - 1 minute
Resolution	: Programme time changes - 10 minutes
Time Display	: 24 hour or 12 hour AM/PM format
Timing Accuracy	: Typically better than 10 minutes per year
	: Time and date factory set

DT92E

Power Supply	: Two AA size, 1.5V alkaline batteries
Temperature Setting Range	: 5 to 35°C in 0.5°C steps can be limited between 5 and 35°C
OFF Setpoint Temperature	: 5°C (default) can be set between 5 & 16°C or turned off
ECO Setpoint Temperature	: 18°C (default) can be set between 5 & 35°C (in 1°C steps), for 1 to 24 hours
Temperature Control Accuracy	: ± 0.5K at 20°C (50% load, 3K/hr)

