

GPRS & HSRS Smart Controllers

Mini-Guide

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Introduction:

Information in this guide is applicable to the Kadtronix family of smart relay controllers. Applicable devices include the following models:

- General Purpose Relay Switch (GPRS)
- HVAC Smart Relay Switch (HSRS)

These controllers provide sensor-activated remote control capability for devices and equipment. Onboard relay with SPDT contacts provides switching for loads up to 5A @250VAC. Wired and/or wireless sensors may be employed.

WARNING: Only a qualified technician should attempt to perform the setup and installation instructions contained in this guide. Your warranty may be voided if damage occurs due to improper installation.

Configuration Settings:

There are two sets of configuration DIP switches (labelled DSW1 & DSW2) which must be properly configured before use. Recommended switch settings will vary depending on the application as there are literally thousands of possible settings combinations. Default settings are listed below. (Note that default settings define immediate trigger activation and equipment shut-off. Refer to "Delay Timing" for specifying delayed triggering.)

DSW1 :	DSW2 :	
-----	-----	
1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	
-----	-----	
Default: 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	[All switches OFF]

Note: An indicated '0' digit means the specified DIP switch is "off". A '1' digit means the switch is "on".

Delay Timing:

The system can be configured to invoke a delay so that relay trigger activation (i.e., equipment shutoff) will not occur until the specified time period has elapsed. DSW1 switches 1 through 4 establish the desired delay. The listing below provides definitions for several available delay settings. (Consult the full user manual for detailed settings and options.)

```
          DSW1 :
          -----
          1 2 3 4
          -----
1 min:   1 0 1 0
2 min:   0 1 1 0
5 min:   1 1 1 0
10 min:  0 0 0 1
```

Notes:

- 1) A '0' digit means the specified DIP switch is "off". '1' means the switch is "on".
- 2) You may also optionally configure a post-shutoff reactivation delay using switches 1, 2, 3, 4 at DSW2. Desired delay values follow the same convention as described for DSW1.

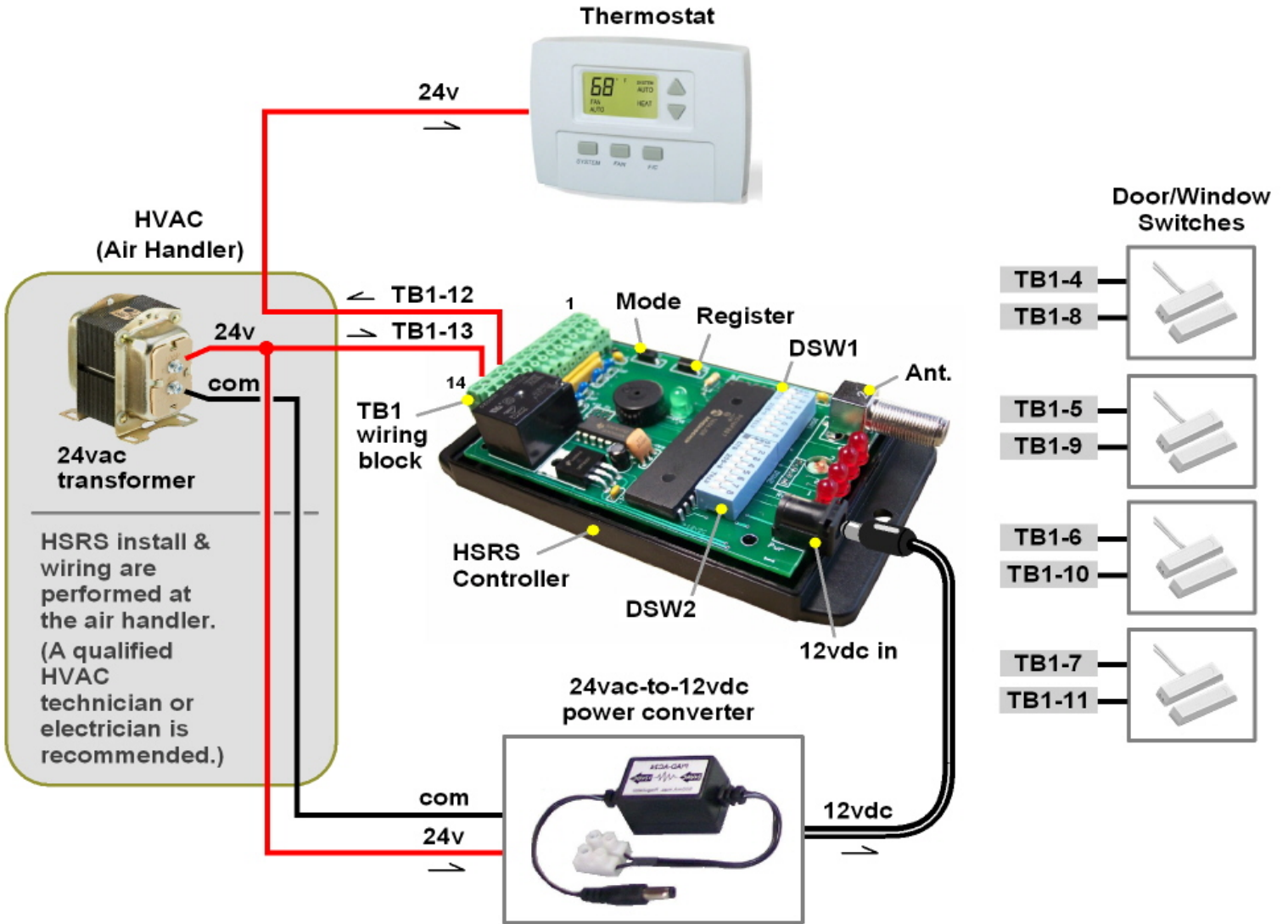
Terminal Block Wiring Connections:

The controller provides screw terminal connections for wiring purposes:

- 1) +12VDC power in/out
- 2) Ground
- 3) Reserved
- 4) Wired Sensor #1
- 5) Wired Sensor #2
- 6) Wired Sensor #3
- 7) Wired Sensor #4
- 8) Wired Sensor return
- 9) Wired Sensor return
- 10) Wired Sensor return
- 11) Wired Sensor return
- 12) Relay - COM
- 13) Relay - N/C
- 14) Relay - N/O

- Notes:
- 1) For wired-sensor applications, any unused sensor inputs should be disabled with a short jumper wire to the appropriate return.
 - 2) Please consult the user manual for complete wiring explanations. (See website link above.)
 - 3) **WARNING:** For wireless applications, avoid contacting the antenna and/or mounting bracket with any grounded object such as the HVAC chassis, water heater, laundry equipment, or metal wall studs. Inadvertent contact may result in electrical failure including damage to the power converter. Customer equipment may also be subjected to blown fuses and/or tripped circuit breaker.
 - 4) If you encounter any issues during or after the install, please contact Kadtronix technical support (321-757-9280) for on-site assistance. Please do not return the product without authorization - proper troubleshooting and/or problem resolution may be impossible once the unit has been removed from service.

Sample Wiring - HVAC Shutoff (with wired door/window switches)



Wired Sensor:

The KD-DW10 is a surface-mount magnetic reed switch. Featuring screw terminals for wiring convenience, it can be easily combined in series with similar switches for a complete closed-loop monitoring solution.

Features:

- Wiring screw terminals
- For normally-closed circuits
- Compatible with serial “daisy-chaining”

For details and specifications, refer to the following resource:

https://www.kadtronix.com/downloads/d10_cut.pdf



Warranty:

This product is warranted for a period of 1 year from the date of purchase and is guaranteed to be free from defects. The warranty covers the entire unit, except if any part or component has been modified or otherwise converted from its original form. The warranty does not cover damage or failure due to neglect, improper setup/use, or unshielded exposure to moisture, power surges, hazardous environments, and the like.

Note: The customer is responsible to provide protection against over-voltage situations including power surges, spikes, and lightning strikes. The use of adequate surge protection is recommended.

Disclaimer:

The customer is responsible to obtain qualified assistance for proper installation of the product. We bear no responsibility for unintended errors, omissions, or ambiguities in product literature. Further, we accept no liability for unforeseen expenses, damages, personal injury, accident, or death due to use or misuse of the product. Purchase and use of this product indicates that you understand and accept these terms.

Notes:
