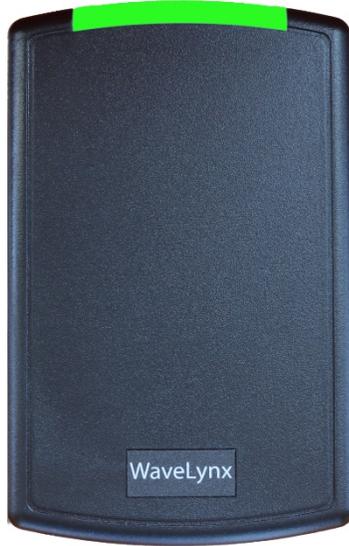


APPLICATION NOTE: OSDP AUTO-DETECT & READER RESET SEQUENCE



ET10-WS



ET20-WS



ET25-WS

OSDP AUTO-DETECT FEATURE

The Ethos[®] Contactless Access Readers offer the patent-pending ‘OSDP[®] auto-detect’ feature. This feature makes the readers automatically configure themselves from **Wiegand communication mode to OSDP communication mode, over the same two green and white wires.**

All reader part numbers with the WS designator and with firmware package 210 (and above) support OSDP[®] auto-detect. These readers are listed in the table below:

ET10 Mullion Reader	ET10-WS1	ET10-WS2	ET10-WS3	ET10-WS5	ET10-WS6	ET10-WS7
ET20 Single Gang Reader	ET20-WS1	ET20-WS2	ET20-WS3	ET20-WS5	ET20-WS6	ET20-WS7
ET25 Keypad Reader	ET25-WS1	ET25-WS2	ET25-WS3	ET25-WS5	ET25-WS6	ET25-WS7
Credential technologies	125 kHz	13.56 MHz	13.56 MHz, 125 KHz	Bluetooth [®] , 125 kHz	Bluetooth [®] , 13.56 MHz	Bluetooth [®] , 13.56 MHz, 125 kHz

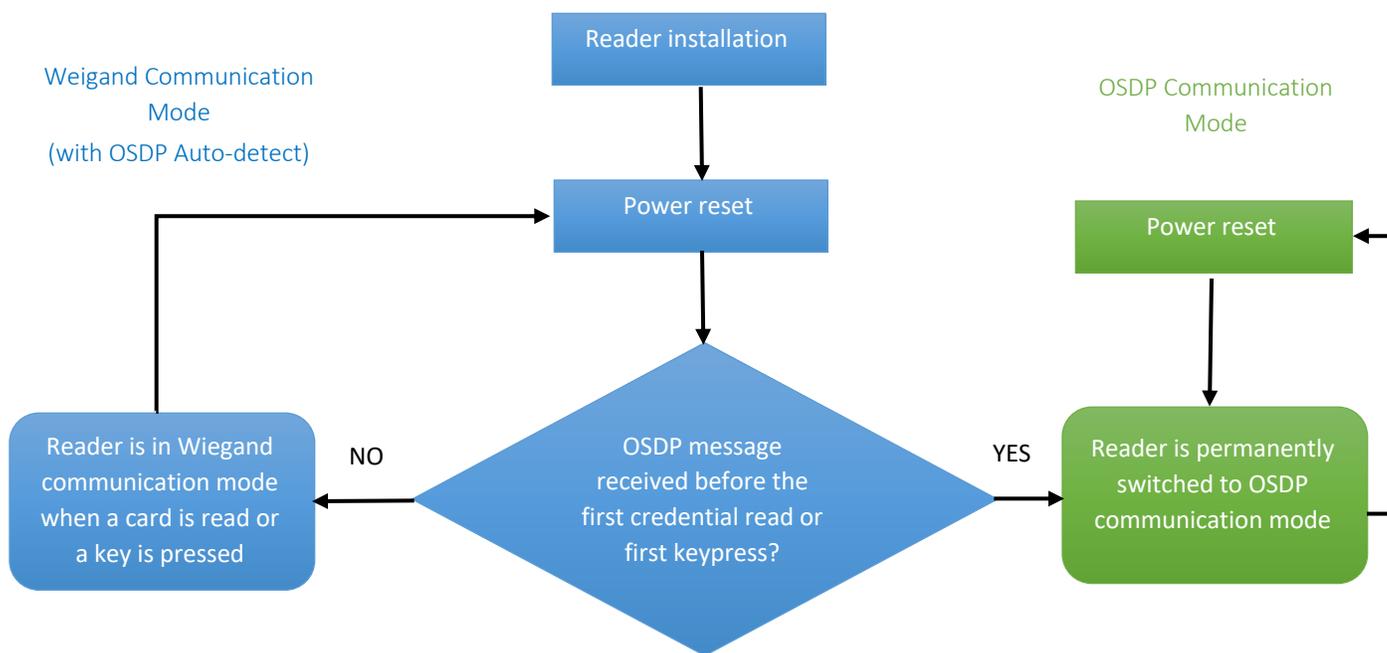
What is the purpose of the 'OSDP® auto-detect' feature?

All you need is one reader: for OSDP panels, Wiegand panels, and for a seamless transition from a Wiegand panel to an OSDP panel.

Simply connect the green and white wires for either communication protocol: The reader communicates with any Wiegand panel out-of-the-box, and automatically upgrades to OSDP when it receives an OSDP message, without having to physically reconfigure, rewire or even touch the reader. For enhanced security, once the reader transitions to OSDP communication mode, it will no longer revert back to Wiegand communication mode.

How does the reader detect OSDP?

By default (out-of-the-box) the reader will transmit credential and keypad data in Wiegand communication mode. Upon each power up, and before the reader reads a credential or a key is pressed, the reader will be listening for an incoming OSDP message. If a message is received during this period, the reader will automatically, and permanently switch to OSDP communication mode. This diagram describes how this feature works:



Installation tips:

When connecting the reader to a Wiegand panel, simply connect the Green wire to Data 0, and the White wire to Data 1, to enable Wiegand communication.

When connecting the reader to an OSDP panel, connect the Green wire to RS485A, and the White wire to RS485B. Verify that the panel is successfully communicating with the reader prior to reading a badge or pressing a key.

The number of beeps during the power-up reset sequence indicates what mode the reader is in:

- 4 beeps indicate that the reader is in Wiegand communication mode (with OSDP Auto-detect)
- 2 beeps indicate that the reader is already in OSDP Communication mode

(See the "READER RESET SEQUENCE" section below for more details)

READER RESET SEQUENCE

Upon a power reset, the Ethos® Readers provide a reset sequence using the LED indicator and the beeper, to provide information about the reader type and its communication mode.

The first sequence (sequence A) describes the credential technologies built in the reader:

- A 1-second red LED flash indicates Bluetooth credential support
- A 1-second green LED flash indicates 13.56 MHz credential support
- A 1-second amber LED flash indicates 13.56 MHz credential support

Sequence A is followed by sequence B. Sequence B indicated the reader communication protocol:

- Two 0.5-second beeps (with a green LED Flash) indicate that the reader is in permanent OSDP communication mode
- Four 0.5-second beeps (with a green LED Flash) indicate that the reader is in Wiegand communication mode (with OSDP auto-detect)

The reader reset sequence is summarized in the table below:

ET10 Mullion Reader	ET10-WS1	ET10-WS2	ET10-WS3	ET10-WS5	ET10-WS6	ET10-WS7
ET20 Single Gang Reader	ET20-WS1	ET20-WS2	ET20-WS3	ET20-WS5	ET20-WS6	ET20-WS7
ET25 Keypad Reader	ET25-WS1	ET25-WS2	ET25-WS3	ET25-WS5	ET25-WS6	ET25-WS7
Credential technologies	125 kHz	13.56 MHz	13.56 MHz, 125 KHz	Bluetooth®, 125 kHz	Bluetooth®, 13.56 MHz,	Bluetooth®, 13.56 MHz, 125 kHz
Reset Sequence A	Amber Flash	Green Flash	Green Flash Amber Flash	Red Flash Amber Flash	Red Flash Green Flash	Red Flash Green Flash Amber Flash
Reset Sequence B	2 beeps (with a green LED Flash) indicate OSDP communication mode, or 4 beeps beeps (with a green LED Flash) indicate Wiegand communication mode (with OSDP auto-detect)					