

Installation and Wiring

All JS-25 models have only two connectors: an Ethernet connector and a circular connector for power and control signals (shown in Figure 1 below).

Figure 1. Installation and wiring of JoeScan scanners.



Ethernet Connector

The Ethernet connector is the industrial version of a simple RJ45 jack. It is sealed, but otherwise identical to standard networking connectors. In a development setting, it is acceptable to use regular Ethernet patch cables to connect scanners to a switch. For the intended application in a production environment, JoeScan highly recommends the use of the cables supplied by us. These cables are manufactured to a higher standard and contain additional shielding to function in noisy electrical environments.

Power/Control Signal Connector

The other connector, an iConn Systems waterproof 8-pin circular connector, carries power and control signals (Encoder and StartScan). The pin-out of the connector is listed in Table 1.

Table 1. iConn Systems Waterproof Connector pin-out.

iCONN Systems Waterproof Connector

Wire Color	Pin	Function
White	1	Encoder B -
Green	2	Encoder B +
White/Black	3	Start Scan -
White/Red	4	Start Scan +
White/Yellow	5	Encoder A -
White/Green	6	Encoder A +
Black	7	Ground
Red	8	+24VDC

The corresponding cable is called the Control Cable. JoeScan sells this cable in different lengths, with an iCONN Systems waterproof 8-pin connector on one end and pigtails (bare wire ends) on the other.

Power

A scanner operates on 24VDC and draws a current of approximately 0.35 Amps, so a sufficiently sized power supply is needed. For testing in the office, any 24VDC supply will work. We recommend Digikey Part No. 102-1937-ND (VGS50-24).

Startup

When connected to a power supply, the "Power" light on the sensor head turns green immediately, and the head begins its initialization process. After a few seconds, the head flashes the laser(s) for about a second. This indicates that the head is healthy and the laser(s) are working.

Activity Lights

- **Link light:** Once the scan head is connected to an Ethernet switch and has power, the Link light will turn green.
- **Activity light:** Flickers amber if there is traffic on your network. This means the scanner is connected and ready to go (at the the physical layer).
- **Status light:** Only used internally