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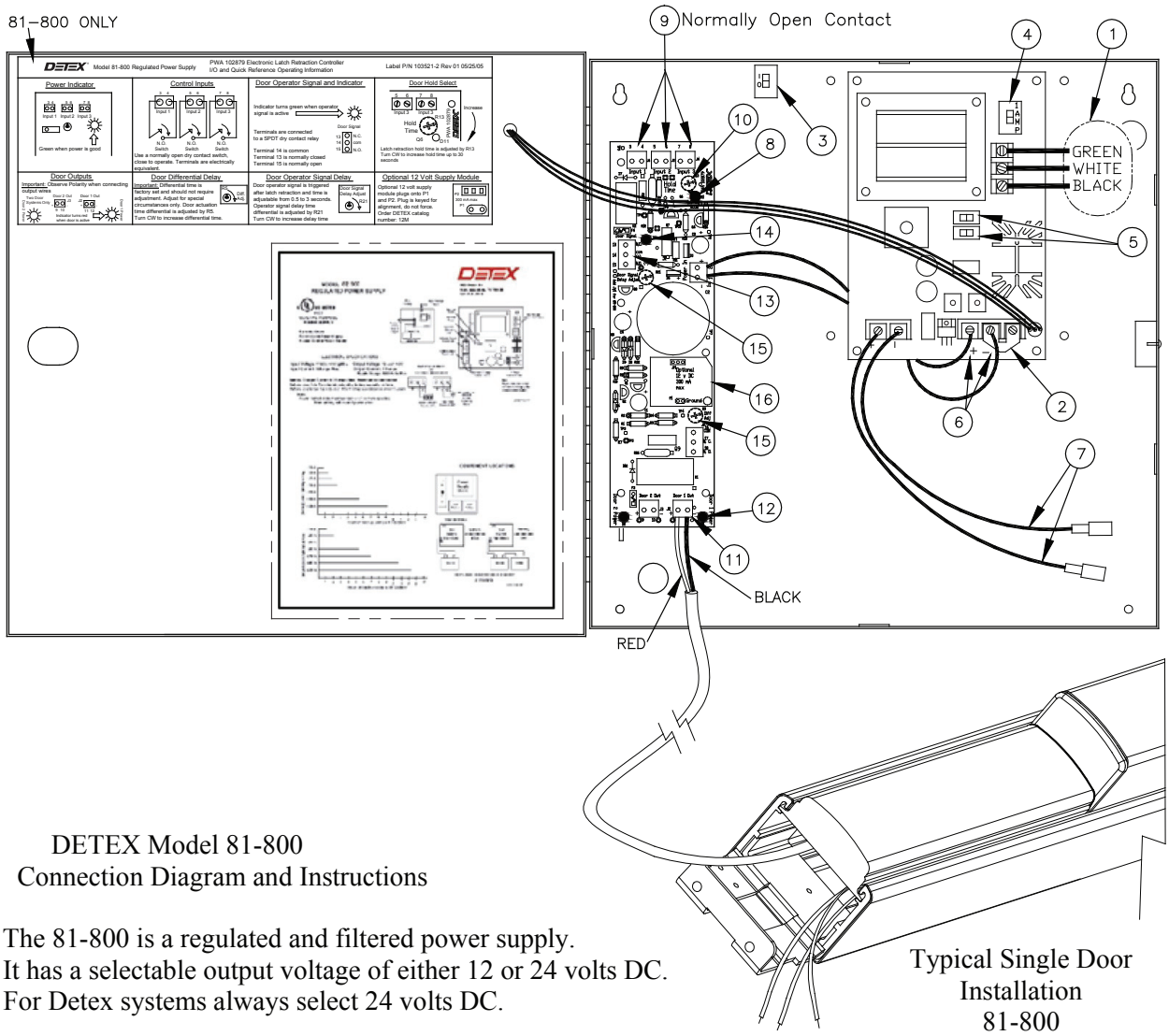
INSTRUCTIONS FOR 81-800

Owner's Copy

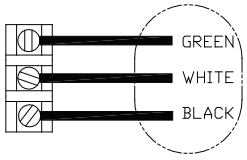


DETEX Model 81-800
Connection Diagram and Instructions

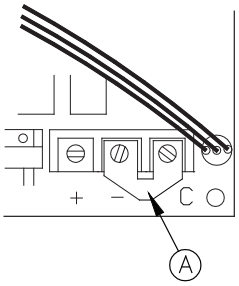
Typical Single Door
Installation
81-800

The 81-800 is a regulated and filtered power supply.
It has a selectable output voltage of either 12 or 24 volts DC.
For Detex systems always select 24 volts DC.

Refer to the drawing of the power supply/controller for connections and adjustments. All connections and adjustment must be made with the power supply de-energized **AND** main power switch (item 3) in the OFF position.

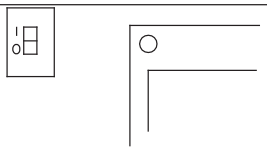


1: Main power connection. Observe correct terminal connections. Color code requires connections made per NFPA72. Leave circuit de-energized while installing and servicing unit.

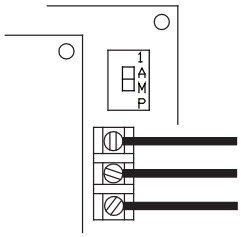


*2: Fire loop control. The fire loop control is bypassed with a factory jumper. This allows the unit to operate independently and does not require any external connections to operate. If connections to the building fire alarm system are required, remove jumper plate **A** between the (-) and (C)terminals. Connect the two wires from the building fire system to these terminals. The power supply will operate normally as long as the connection between the (-) and (C) is maintained. When the building fire alarm system opens the circuit, the power supply de-energizes the output voltage. Fire loop uses 24 volt sense voltage.*

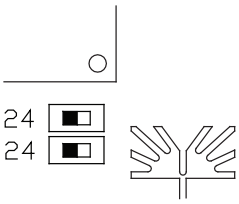
3: Main ON-OFF switch. This switch can be used to de-energize the power supply for service and adjustments. High voltage is still present inside the enclosure as long as the main power feed is energized, so caution should still be used when service is performed using this switch.



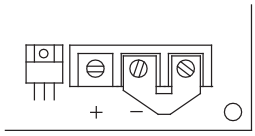
4: 1 Amp circuit breaker. This is intended to protect the device against high current loads and is part of the AC input circuit. It is a thermal device and can be reset once the cause of the overload is corrected.



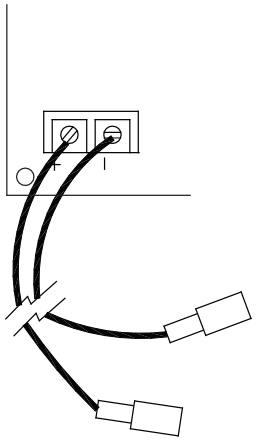
5: Output voltage select switches. These must both be set to the 24 volt position. They should be preset at the factory and require no adjustment. If they need adjustment, de-energize the unit first.



6: Output terminals. Outputs 24 volts at 1 amp maximum. The output is protected by a PTC thermally resetable fuse element. The fuse will reset once the cause of the overload is found and corrected. Observe correct polarity when making connections. Factory wired to ER control board.

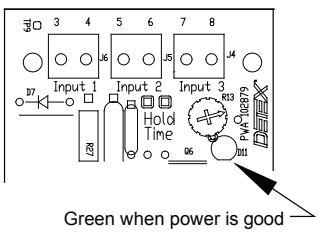


7: Optional battery backup connections. This output is intended for lead acid batteries and is also at 24 volts. Typically, two 12 volt batteries are connected in series for this application. Approximate battery life is charted on the label inside the cover of the power supply.



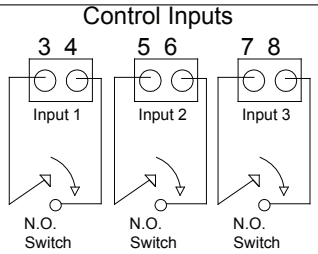
8: Power Good Indicator. This LED will glow green if 24 volts is supplied to the controller board.

Power Indicator

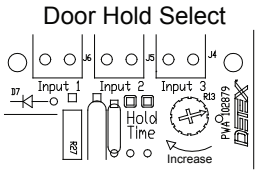


Green when power is good

9: Control Inputs. These require a normally open contact. The door latch will activate and hold once the circuit between the terminals of Inputs 1 (J6) , 2 (J5) or 3 (J4) is closed.

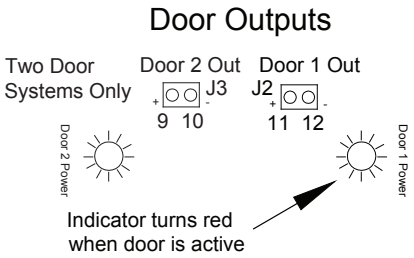


10: Door Hold Delay Adjust. This potentiometer adjusts the length of time the latch is held retracted once the input switch is released. Turn clockwise to increase the latch hold time up to a maximum of about 30 seconds.

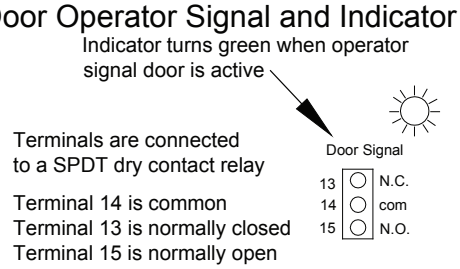


11: Output to ER Device. This terminal block (J2) is connected to the ER power wires. Observe correct polarity. Red from the ER is positive (terminal 11) and black is negative (terminal 12). The board is also marked + and - at the connections as well.

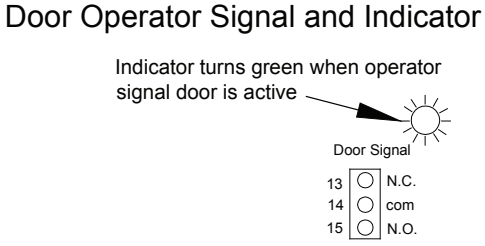
12: Door Output Activity Indicator. The LED glows red when the output voltage to the latch retraction device is energized.



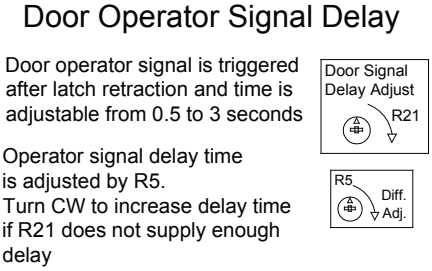
13: Door Opener Output. Connector J7 is connected to a relay. It can be used to signal a door opener or other device that the latch is retracted. It is delayed and goes active after the latch retraction occurs. The amount of the delay is .5 to 3 seconds and is adjusted by Item 15 below.



14: Door Operator Status Indicator. The status LED will glow green when the relay is energized.



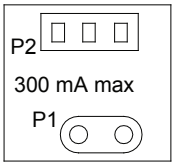
15: Door Operator Delay Adjust. There are two potentiometers that adjust the delay of the operator signal relay. Under normal use, only R21 should be used. Turn clockwise to increase the delay between the door latch retraction and the relay being energized. Turn R5 only if a longer delay time is needed.



16: Optional 12 Volt Power Module. An optional 12 volt power supply module is available where a 12 volt DC source is needed in addition to 24 volts. See the kit instructions for more information.

Optional 12 Volt Supply Module

Optional 12 volt supply module plugs onto P1 and P2. Plug is keyed for alignment, do not force. **Order DETEX catalog number: M12**



RECOMMENDED WIRE SIZES:

WIRE GAUGE	MAXIMUM LENGTH OF TWO CONDUCTOR CABLE
20 AWG	10 FEET
18 AWG	40 FEET
16 AWG	60 FEET
14 AWG	100 FEET