

T-DAR Single-Door Installation Checklist





Includes information for those installations where two, independent single door systems are operated by a single T-DAR controller







Door Setup - Top View



T-DAR Control Box Front Panel Connections

		General 1	General 2
		A1 Relay 1A	B1 Input 1
		A2 Relay 1B	B2 Input 2
Λ	1 2 3 4 5 6 7 8 9 10 1 1 2	A3 Relay 2A	B3 Input Common
А		A4 Relay B2	B4 Serial TX
		A5 Relay 3A	B5 Serial RX
		A6 Relay 3B	B6 Ground
		A7 Relay 4A	B7 Not Used
		A8 Relay 4B	B8 Ground
-		A9 Line Lock	B9 +5VDC
в	1 2 3 4 5 6 7 8 9 101112	A10 Ground	B10 +12VDC
_		A11 +24VDC	B11 +24VDC
		A12 Ground	B12 Ground
		Portal/Head 1	Portal/Head 2
c	1 2 3 4 5 6 7 8 9 1 01 14 2	Portal/Head 1	Portal/Head 2
с	1 2 3 4 5 6 7 8 9 10 1 1 2	Portal/Head 1 C1 Input 3 C2 Input 4	Portal/Head 2
с	1 2 3 4 5 6 7 8 9 10 1 12	Portal/Head 1 C1 Input 3 C2 Input 4 C3 Input 5	Portal/Head 2 D1 Input 9 D2 Input 10 D3 Input 11
с	1 2 3 4 5 6 7 8 9 101112	Portal/Head 1 C1 Input 3 C2 Input 4 C3 Input 5 C4 Input 6	Portal/Head 2 D1 Input 9 D2 Input 10 D3 Input 11 D4 Input 12
c	1 2 3 4 5 6 7 8 9 10 1 12	Portal/Head 1 C1 Input 3 C2 Input 4 C3 Input 5 C4 Input 6 C5 Input 7	Portal/Head 2 D1 Input 9 D2 Input 10 D3 Input 11 D4 Input 12 D5 Input 13
с	1 2 3 4 5 6 7 8 9 101 112	Portal/Head 1 C1 Input 3 C2 Input 4 C3 Input 5 C4 Input 6 C5 Input 7 C6 Input 8	Portal/Head 2 D1 Input 9 D2 Input 10 D3 Input 11 D4 Input 12 D5 Input 13 D6 Input 14
c	1 2 3 4 5 6 7 8 9 101 112	Portal/Head 1 C1 Input 3 C2 Input 4 C3 Input 5 C4 Input 6 C5 Input 7 C6 Input 8 C7 Input Common	Portal/Head 2 D1 Input 9 D2 Input 10 D3 Input 11 D4 Input 12 D5 Input 13 D6 Input 14 D7 Input Common
C D	1 2 3 4 5 6 7 8 9 101 112	Portal/Head 1 C1 Input 3 C2 Input 4 C3 Input 5 C4 Input 6 C5 Input 7 C6 Input 8 C7 Input Common C8 Relay 5A	Portal/Head 2 D1 Input 9 D2 Input 10 D3 Input 11 D4 Input 12 D5 Input 13 D6 Input 14 D7 Input Common D8 Relay 6A
C D	1 2 3 4 5 6 7 8 9 101112 1 2 3 4 5 6 7 8 9 101112	Portal/Head 1 C1 Input 3 C2 Input 4 C3 Input 5 C4 Input 6 C5 Input 7 C6 Input 8 C7 Input Common C8 Relay 5A C9 Relay 5B	Portal/Head 2 D1 Input 9 D2 Input 10 D3 Input 11 D4 Input 12 D5 Input 13 D6 Input 14 D7 Input Common D8 Relay 6A D9 Relay 6B
C D	1 2 3 4 5 6 7 8 9 101112 1 2 3 4 5 6 7 8 9 101112	Portal/Head 1 C1 Input 3 C2 Input 4 C3 Input 5 C4 Input 6 C5 Input 7 C6 Input 8 C7 Input Common C8 Relay 5A C9 Relay 5B C10 +12VDC	Portal/Head 2 D1 Input 9 D2 Input 10 D3 Input 11 D4 Input 12 D5 Input 13 D6 Input 14 D7 Input Common D8 Relay 6A D9 Relay 6B D10+12VDC
C D	1 2 3 4 5 6 7 8 9 101112 1 2 3 4 5 6 7 8 9 101112	Portal/Head 1 C1 Input 3 C2 Input 4 C3 Input 5 C4 Input 6 C5 Input 7 C6 Input 8 C7 Input Common C8 Relay 5A C9 Relay 5B C10 +12VDC C11 +24 VDC	Portal/Head 2 D1 Input 9 D2 Input 10 D3 Input 11 D4 Input 12 D5 Input 13 D6 Input 14 D7 Input Common D8 Relay 6A D9 Relay 6B D10 +12VDC D11 +24VDC
C D	1 2 3 4 5 6 7 8 9 101112 1 2 3 4 5 6 7 8 9 101112	Portal/Head 1 C1 Input 3 C2 Input 4 C3 Input 5 C4 Input 6 C5 Input 7 C6 Input 7 C6 Input 8 C7 Input Common C8 Relay 5A C9 Relay 5B C10 +12VDC C11 +24 VDC C12 Ground	Portal/Head 2 D1 Input 9 D2 Input 10 D3 Input 11 D4 Input 12 D5 Input 13 D6 Input 14 D7 Input Common D8 Relay 6A D9 Relay 6B D10 +12VDC D11 +24VDC D12 Ground

Upper Front Panel Connections





T-DAR Single-Door Installation Checklist

An incorrectly wired T-DAR system, faulty connection, or bugs in access control programming will often not show up until the completion date of the project. Failure to finish the following installation procedures before the setup period may extend the completion date of the project.

This check list is used to confirm completion of T-DAR installation for a single-door system. It also includes information for those installations where two, independent single door systems are operated by a single T-DAR control unit.

Successfully completing these procedures serves to confirm proper installation so that system setup may proceed. This list must be completed, signed and dated before commissioning by either a Newton Engineer or a trained and approved engineer.

- 1. No modifications on the T-DAR control box have occurred before or during the installation.
- 2. **Project Photographs** As soon as the T-DAR system is installed at a doorway, shoot and send photos to T-DAR setup personnel.
 - a. Photos from the secure side should be taken of the ceiling, floor, and door. If this is an independent, two-door system, pictures should be taken of both doors.
 - b. Send at least two pictures of the location and opened front of the T-DAR control unit showing all input/output wires terminated at the green Phoenix connectors.
- 3. Ensure that the light level is at least 300LUX (downward light measurement) at all points under the camera head. Take measurements at 40 inches (1 m) above the floor in a 2.5 ft. (760 mm) radius centered on the camera head.
- 4. Verify that the camera head(s) is higher than eight feet (2.46 meters), but less than 11 feet (3.38 m) above the floor and that the head(s) is parallel to the floor.
- Verify that each camera head is precisely positioned as shown in the diagram on page two. Especially note that Camera 1 (or "a") on each camera head in the system is positioned away from the door that it is monitoring.
- 6. For entry, verify that the valid access signal from the access control system occurs at the same time or before the door is unlocked and has duration of at least 300 milliseconds.
- 7. Confirm that each camera head in the installation is connected to the T-DAR control unit. Cameras "a" and "b", on each head are to be connected to ports "a" and "b" of the control box. In addition, connect camera sync cables (Cat5) to the Camera 1 port for Head 1 of the T-DAR control unit. If this is an independent, two-door system, connect Camera Head 2 to the Camera 2 port on the control unit.

For steps 8 through 13, link a PC to the T-DAR control unit using an Ethernet connection. Once established, connect to the control box using the T-DAR User Interface (UI) application. The status "connected" should be displayed at the bottom of the user interface. Connect a video monitor to the video-out port of the T-DAR control unit.



8. Click the "Monitor" tab of the user interface to set the video output. <u>If this is an independent, two-door system</u>, there will be a drop-down menu in the "Display Demo" section, indicating Door 1 and Door 2. Select the first door from the dropdown menu and observe two separate images on the lower half of the video monitor. Verify that these images are still, clear, and that they are not shifted up or down. Select the second door from the dropdown menu and verify the images are still, clear, and that they are not shifted up or down.

Select "Show I/O" on the "Monitor" tab of the user interface.

- 9. For the door-contact. Test and verify that as the door closes Input #3 changes from red to green on the input/output display of the monitor. <u>If this is an independent, two-door system</u>, test and verify that Input #9 changes from red to green when the second door closes.
- 10. For Public Valid Access. Test and verify that as the Valid Access request is granted, Input #4 changes from red to green on the input/output display of the monitor. If this is an independent, twodoor system, test and verify Input #10 changes from red to green when the second Valid Access request is granted
- 11. For Supervisor Over-Ride (portal reset). Test and verify that as the Supervisor Override indicator is activated (when override button is pressed), Input #1 changes from red to green on the input/output display of the monitor. If this is an independent, two-door system, test and verify that Input #2 changes from red to green when the second door Supervisor Override is activated.
- 12. **In-Swinging Door Encoder**. When installing a door encoder (used on all inward swinging doors), be sure that Inputs #7 and #8 oscillate red and green on the input/output display of the monitor when the door is moved. <u>If this is an independent, two-door system</u> and the second door is also inward swinging, be sure that Inputs #13 and #14 oscillate red and green on the input/output display of the monitor when the second door is moved.
- 13. For inward swinging doors, confirm that it(they) is equipped with a door closer that automatically closes in a slow consistent manner and that the door is not allowed to open more than 100 degrees.
- 14. If the lighting above the doorway is provided by low frequency florescent fixtures operating at 60Hz or less, verify that a low-voltage, AC transformer has been installed and connected to the Line Lock and Ground terminals (A9 and A10) in the T-DAR control box. The Line Lock transformer voltage should be 6-30VAC.
- 15. Ensure that there is at least six inches (15.24 cm) between each T-DAR control unit and any other physical barrier for proper ventilation.
- Verify that an alarm output line extends to the building security center and the line is connected across Relay #5 (pins C8 and C9). <u>If this is an independent, two-door system</u>, verify a second line to the security center, is connected across Relay #6 (pins D8 and D9).

I confirm that I have checked and verified these 16 items and that the proper installation of this T-DAR system is complete and ready for the commissioning process.

Name:	Date:

T-DAR Project Name: _____