

# **T-DAR Mantrap Installation Checklist**

To be completed before commissioning

#### Model T1010MT One Head











## Single-Head Mantrap

#### **T-DAR Control Box Front Panel Connections**

		General 1	General 2
A	1 2 3 4 5 6 7 8 9 101 112	A1 Relay 1A A2 Relay 1B A3 Relay 2B A4 Relay 2B A5 Relay 3A A6 Relay 3B A7 Relay 4B A8 Relay 4B	B1 Input 1 B2 Input 2 B3 Input Common B4 Serial TX B5 Serial RX B6 Ground B7 Not Used B8 Ground
В	1 2 3 4 5 6 7 8 9 10 11 12	A9 Line Lock A10 Ground A11 +24VDC A12 Ground	B9 +5VDC B10 +12VDC B11 +24VDC B12 Ground
		Portal/Head 1	Portal/Head 2
С	1 2 3 4 5 6 7 8 9 101112	C1 Input 3 C2 Input 4 C3 Input 5	D1 Input 9 D2 Input 10
D	1 2 3 4 5 6 7 8 9 10 11 12	C4 Input 6 C5 Input 7 C6 Input 8 C7 Input 8 C7 Input 8 C7 Input 8 C7 Input 8 C7 Common C8 Relay 58 C10 +12VDC C11 +24VDC C12 Ground	D4 Input 12 D5 Input 12 D6 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 One-Head Mantrap 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 one-head mantrap system.

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. **IMPORTANT:** There should be no direct sunlight into the mantrap at any time.
- 3. Mantrap dimensions:
  - a. The length and width should not exceed 1.5 m (5 feet).
  - b. For a camera-head height between 2.4m (8 feet) and 2.6m (8.5 feet), the mantrap length and width are 1.37m (4.5 feet) or less
  - c. For a camera-head height 2.75m (9 feet) or more, the mantrap length and width are 1.5m (5 feet or less)
- 4. If the camera-head height is between 2.44 m (8 feet) and 3.05 m (10 feet) a 1.9 lens is required. OR

If the camera-head height is between 3.05 m (10 feet) and 3.35 m (11 feet) a 2.5 lens is required.

- 5. Verify that the camera head is positioned as shown in the diagram on the previous page and that camera 1 (or 'a') on the camera head is positioned toward the secure side of the mantrap. The diagram shows a perpendicular camera orientation.
- 6. Ensure that the light level is at least 300LUX (downward light measurement) at all points in the mantrap. Take measurements at 1 m (40 inches) above the floor.
- 7. Project photographs When construction of the mantrap is complete and the answers to questions #1 through #6 are confirmed as correct, then shoot a minimum of eight, specific photos from inside and adjacent to the mantrap and send them to T-DAR set-up personnel:
  - a. From the public door, take photos of the ceiling, the floor, and the secure door.
  - b. From the secure door, take photos of the ceiling, the floor, and the public door.
  - c. **Additionally**, 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.
- 8. The camera head is connected to the T-DAR control unit. Cameras 'a' and 'b', of the camera head should be connected to BNC portals '1a' and '1b' of the control box. In addition, the camera sync cable (Cat5) is connected to 'portal 1' of the T-DAR control unit.

For steps #9 through #19, 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.



9. Select the "Monitor" tab of the user interface to set the video output. Under the section "Display Demo," select "Show camera views." Observe the images on the bottom of the monitor. Verify that these images are absolutely still, clear, and that they are not shifted up or down.

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

- 10. Test and verify that as the public door closes, Input #4 changes from red to green on the input/output display of the monitor. If the switch is "normally closed," the input will change from green to red.
- 11. Test and verify that as the secure door, public-side reader is granted, Input #5 changes from red to green on the input/output display of the monitor. If the reader is "normally closed," the input will change from green to red.
- 12. Test and verify that as the secure door closes, Input #6 changes from red to green on the input/output display of the monitor. If the switch is "normally closed," the input will change from green to red.
- 13. Test and verify that as the secure door, secure side reader is granted, Input #3 changes from red to green on the input/output display of the monitor. If the reader is "normally closed," the input will change from green to red.
- 14. Test and verify that as the public door, public side reader is granted, Input #2 changes from red to green on the input/output display of the monitor. If the second reader is "normally closed," the input will change from green to red.
- 15. If the mantrap is fitted with an optional "request to exit" reader/button for the public door, test and verify that as the public door, secure side reader/button is granted, Input #7 changes from red to green on the input/output display of the monitor. If the reader/button is "normally closed," the input will change from green to red.
- 16. For Supervisor Override. Test and verify that as the Supervisor Override signal is provided (override button is pressed); Input #1 changes from red to green on the input/output display of the monitor.
- 17. Verify that an alarm output line extends to the building security center and that this line is connected across Relay #5 (pins C8 and C9). Briefly close the connection on this line by shorting pins C8 and C9. Ensure that you receive an alert on your security system.
- 18. Verify that both the public and secure door locks engage immediately when the T-DAR unit sends locking signals to either of these doors. If there is a delay in lock engagement on the public door lock, after a T-DAR lock command, the door will be able to be pushed open during the interlock process. This is also true for the secure door if there is a delay in its locking process.
- 19. If the lighting inside the mantrap is provided by low frequency florescent fixtures operating at 60Hz or less, verify that the provided, 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.

## I confirm that I have verified all items on this checklist and that this T-DAR system is ready for commissioning.

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