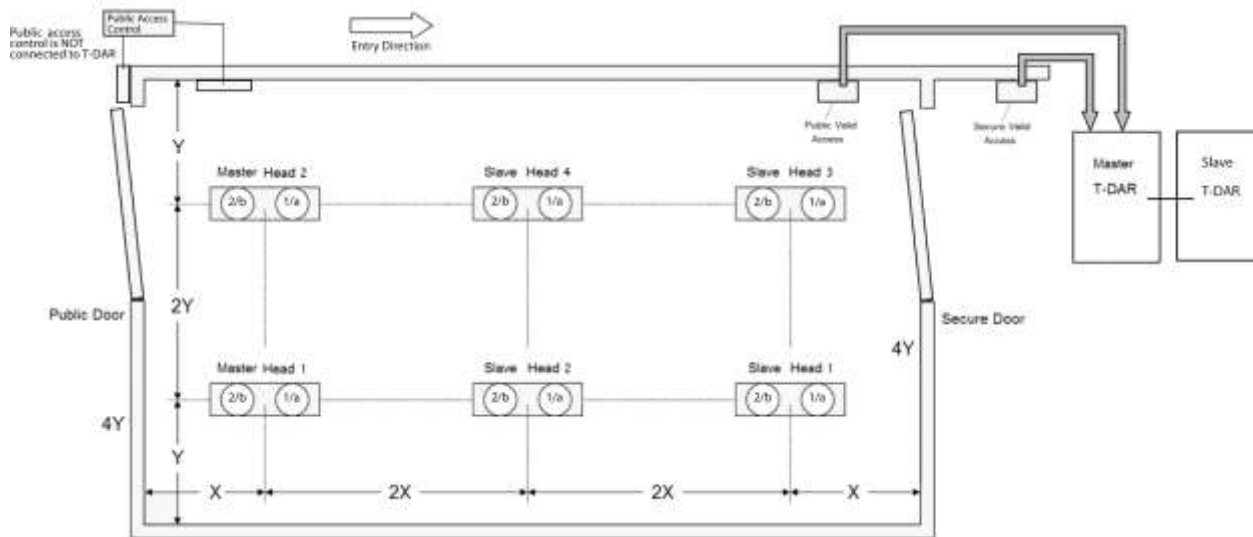


# T-DAR Mantrap Installation Checklist

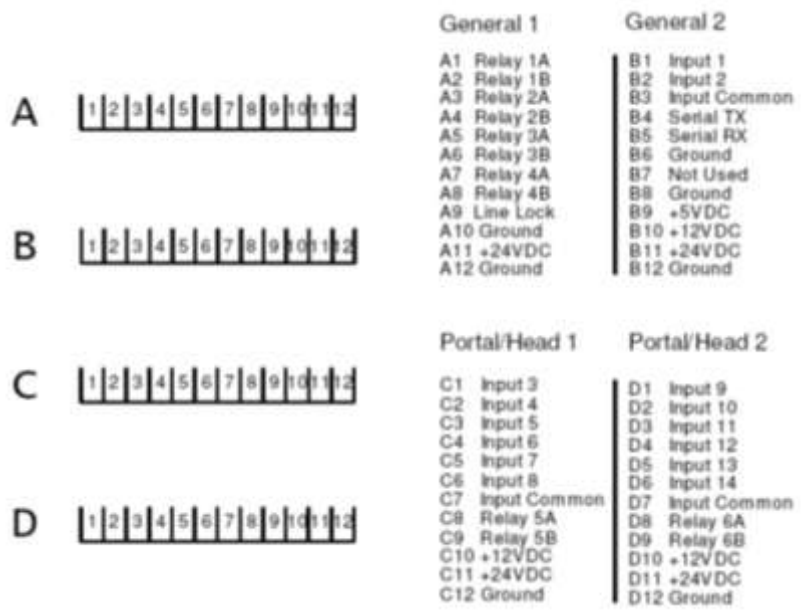
*To be completed before commissioning*

Model T6010MT Six-Head

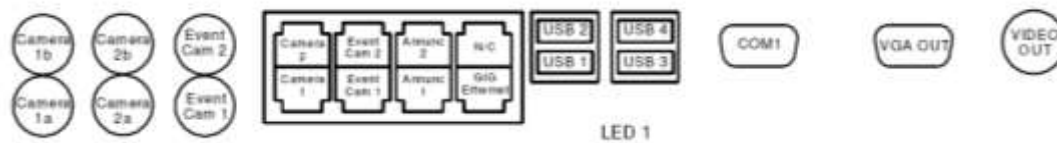




### T-DAR Control Box Front Panel Connections



### Upper Front Panel Connections



## T-DAR Six-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 six-head mantrap system which generally features over-sized single doors or double-door units to pass between public and secure areas. 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:
  - For ceiling height that is between 8 ft. (2.46 m) and 9 ft. (2.77 m), the length and width of the mantrap should not exceed 9 ft. (2.77 m) by 14 ft. (4.25 m).
  - For ceiling height that is between 9 ft. (2.77 m) and 11 ft. (3.38 m) the length and width of the mantrap should not exceed 10 ft. (3.08 m) by 15 ft (4.57 m).
- 4. Confirm that camera heads are at the same height, parallel to the floor and square with one another.
- 5. If the camera head height is between 8 ft. (2.44 m) and 10 ft (3.05 m) a 1.9 lens is required.   
 OR  
 If the camera head height is between 10 ft. (3.05 m) and 11 ft. (3.35 m) a 2.5 lens is required.
- 6. If the public single-door or double-door unit opens into the mantrap, a door encoder(s) will be required. For inward swinging public doors, confirm that they are equipped with door closers that automatically close in a slow consistent manner and are not allowed to open more than 100 degrees.
- 7. Camera head units each contain two cameras which are labeled "1" (or "a") and "2" (or "b"). Verify that the camera heads are positioned as shown in the diagram on page 2 and that the "1" (or "a") end of each camera head is positioned toward the **secure side** of the mantrap.
- 8. **Project Photographs** - When construction of the mantrap is complete and the answers to questions #1 through #7 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. With your back to the public door, take photos of the ceiling, the floor, and the secure door.
  - b. With your back to 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 Master T-DAR control unit showing all input/output wires terminated at the green Phoenix connectors.
- 9. Ensure that the light level is at least 300LUX (downward light measurement) at all points under the camera heads. Take measurements at 40 inches (1m) above the floor.
- 10. Master camera heads 1 and 2 are connected to the T-DAR Master Control unit. Cameras "a" and "b" on master heads 1 and 2 are to be connected to ports "a" and "b" of the master unit. In addition, connect camera sync cables (Cat5) to the Camera 1 port for Head 1 and the Camera 2 port for Head 2.
- 11. Camera heads 3 through 6 are connected to the T-DAR Slave Control unit. Cameras 'a' and 'b', in heads 1, 2, 3, and 4 should be connected to the BNC ports on the slave control box. Six of these eight BNC ports are located on the top left of the slave unit and the remaining two BNC ports are located on an external BNC adaptor box. In addition, connect four camera sync cables (Cat5) to the Cat5 ports of the T-DAR slave unit, labeled "Cam 1", "Cam 2", "Event Cam 1" and "Event Cam 2.

**For steps 12 through 22, 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 or VGA monitor to the video-out or VGA port of the T-DAR control unit.**

- 12. Click the “Monitor” tab of the UI to set the video output. There is a drop-down menu in the “Display Demo” section, indicating Public Door, Secure Door, portal 1, 2, 3, and 4. Select Secure Door from the dropdown menu and observe two separate images on the lower half of the video monitor. Verify that these images are motionless, clear, and that they are not shifted up or down. Select Public Door from the dropdown menu and verify the images are motionless, clear, and that they are not shifted up or down. Perform this same check on the remainder of the cameras in the drop-down menu.

**Select “Show I/O” on the “Monitor” tab of the user interface.**

- 13. **For the public door contact.** 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 public side is a double-door unit, then Input #4 should only show green when both doors are closed.
- 14. **For the Secure Door Public Valid.** Test and verify that as the Secure Door Public Valid Access is granted (access grant signal from inside mantrap), Input #5 changes from red to green on the input/output display of the monitor. If the secure side is a double-door unit, then Input #5 should only show green when both doors are closed.
- 15. **For the secure door-contact.** 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 secure side is a double-door unit, then Input #6 should only show green when both doors are closed.
- 16. **For Secure Door Secure Valid.** Test and verify that as the Secure Door Secure Valid request is granted (signal from outside mantrap on the secure side), Input #3 changes from red to green on the input/output display of the monitor.
- 17. **If a door encoder is installed**, as required on inward-swinging public doors, be sure that Inputs #7 and #8 oscillate red and green on the input/output display of the monitor, during door movement. If the public side is a double-door unit, Inputs #13 and #14 should also oscillate red and green on the monitor’s input/output display, during door movement.
- 18. **For Supervisor Override.** Test and verify that as the Supervisor Override indicator activates (when override button is pressed), Input #1 changes from red to green on the monitor input/output display.
- 19. 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.
- 20. 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).
- 21. For public doors with their own access readers, ensure that the T-DAR as well as the access control system can both lock the public door, in parallel (independently). The public door will lock when the T-DAR and/or the access control system locks it. **NOTE: Ensure that no readers controlling access to the public door (inside or out) interface with T-DAR.**
- 22. Ensure the Public Valid (public reader) has been placed under the four slave cameras on the secure side.
- 23. If the mantrap lighting is 60Hz or below, verify an AC Line Lock signal is connected across Line Lock and ground (A9 and A10). This signal can range from 6-30VAC. Ensure this is performed on both T-DAR control units, if necessary.

***I confirm that I have verified all items on this check list and that this T-DAR system is ready for commissioning.***

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Location: \_\_\_\_\_