

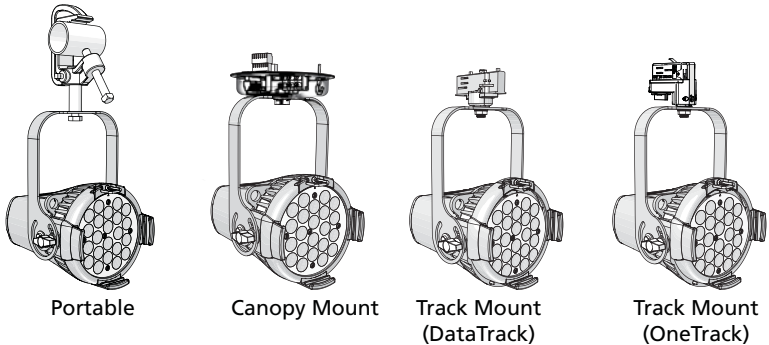
ETC Installation Guide

Desire Series D22

Introduction

The Desire D22 is designed for indoor installations and has a rugged die-cast enclosure, steel mounting yoke, and noise-free, fan-less operation.

The Desire D22 can be pipe mounted with a C-clamp, canopy mounted, or track mounted (either OneTrack or DataTrack systems). Mounting accessories are available. Contact ETC Customer Service for assistance; contact information is at the bottom of this page.



For information about the operation of the D22 Desire Series, see the *Desire Series by ETC D22, D40, D40XT, D60 User Manual*. ETC manuals are available for download at etconnect.com.



CAUTION: *Do not attempt to install or use a fixture until you read and understand the installation instructions and safety labels.*



WARNING: RISK OF ELECTRIC SHOCK! This device should only be installed by a qualified installer or electrician. Follow all local codes for installation.

AVERTISSEMENT : RISQUE DE DÉCHARGE ÉLECTRIQUE! Cet appareil ne doit être installé que par un installateur qualifié ou un électricien. Suivez tous les codes locaux pour l'installation.



Corporate Headquarters ■ Middleton, WI, USA | +1 608 831 4116
Global Offices ■ London | Rome | Holzkirchen | Paris | Hong Kong | Dubai | Singapore
New York | Orlando | Los Angeles | Austin | © 2023 Electronic Theatre Controls, Inc.
Web etconnect.com | **Support** support.etconnect.com
Contact etconnect.com/contactETC | Trademark and patent info: etconnect.com/ip
Third-party license agreement info: etconnect.com/licenses | Product information and specifications subject to change. ETC intends this document to be provided in its entirety.
7411M2100 Rev G Released 2023-07

ETC Installation Guide

Desire D22

Specifications

Environment

Operates in ambient temperatures of 0°C to 40°C (32°F to 104°F).



- WARNING:**
- **Risk of eye injury. Do not stare directly into the light.**
 - **Do not mount the fixture on or near a flammable surface.**

- AVERTISSEMENT :**
- **Risque de lésion oculaire. Ne fixez pas directement la lumière.**
 - **Ne pas installer le projecteur sur ou à côté d'une surface inflammable.**
-

Control

Portable

The Desire D22 Portable has 5-pin XLR connectors on the back for In and Thru connection to a DMX/RDM control network.

Canopy Mount

The Desire D22 Canopy Mount fixture has one cable, which provides power and data into the canopy.

A termination board is incorporated into the mounting plate for installation onto a voltage-separated junction box (junction box provided by others, voltage barrier provided by ETC) and provides termination for control wiring:

- Connection of the D22 data cable to a provided connector, which is pre-wired at the factory. The connector is plugged into the termination board. The braided shield is connected inside the fixture and should not be connected in the canopy.
- Connection of DMX/RDM input from the control source, which can be cable type Belden 9729 (or equivalent) or Cat5 (or equivalent).
- Connection of DMX/RDM thru to the next DMX device, which can also be either Belden 9729 or Cat5. A termination kit (ETC part number 4100A1022) is provided for this connection. Termination instructions are provided with the termination kit. Up to 32 DMX/RDM devices can be daisy-chained together per data run.

Track Mount

The Desire D22 Track Mount fixture's power and data connections are made through the OneTrack or DataTrack adapter. No further wiring to the fixture is required. See the track installation instructions for more information.

ETC Installation Guide

Desire D22

Electrical



WARNING: RISK OF ELECTRIC SHOCK! Power must be off when you perform this procedure.

AVERTISSEMENT : RISQUE DE DÉCHARGE ÉLECTRIQUE! L'alimentation doit être éteinte avant d'exécuter cette procédure.

- **Portable:** The Portable fixture has a permanently installed power cord with 3-prong Edison connector. Region-specific connectors are available. Contact ETC for available options. Use L5-15 plugs on branch circuits with L5-15 receptacles only.
- **Canopy Mount:** The Canopy Mount fixture has power and data wired to the canopy and should be terminated in a voltage-separated junction box (provided by others).
- **Track Mount:** The Track Mount fixture receives power through its OneTrack or DataTrack adapter, which connects to one of two circuits.

Power Requirements

The universal power supply accepts 100–240 VAC 50/60Hz.



- CAUTION:**
- *Do not use a fixture for any voltage for which it is not rated. Do not exceed the specified voltage and current input for any fixture. Connecting the fixture to a voltage outside the acceptable range may damage the unit and will void the factory warranty.*
 - *The fixture must be connected to a non-dimmable power source. Dimming the unit will damage the fixture and void the factory warranty.*
 - *The fixture must be grounded.*
 - *Application-appropriate, voltage-separated electrical junction box with cord grips is required. RACO 232 series 4 x 2-1/8 inch deep junction box is recommended. Junction box must not interfere with fixture focusing.*
 - *The fixture is factory pre-wired. Opening the housing is not required.*

Mains	Europe	North America
Line	Brown	Black
Neutral	Blue	White
Ground	Green/Yellow	Green

ETC Installation Guide

Desire D22

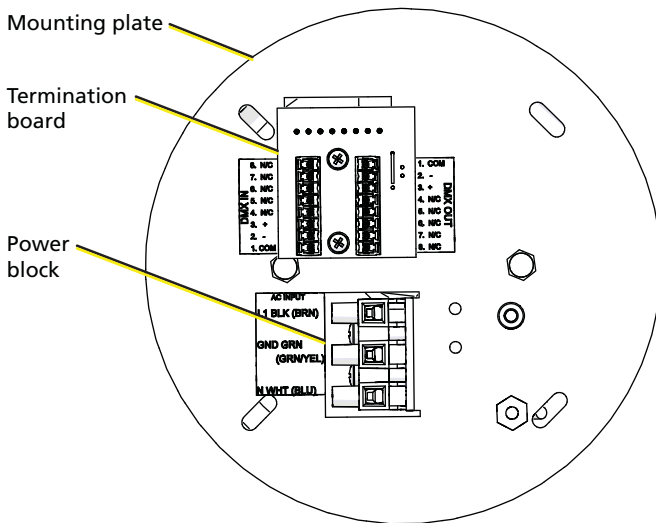
Installation

Termination

The Desire D22 requires termination at the last fixture on a DMX/RDM line with a 120-ohm resistor.

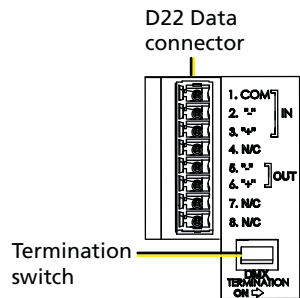
- The Portable fixture is self-terminated.
- The Track Mount fixture is terminated with either a OneTrack DMX Terminator (7076A1030) or DataTrack DMX Terminator (7066A1030).
- The Canopy Mount fixture is terminated on the Termination board inside the canopy.

Canopy Mounting Plate and Termination Board



Termination

The Canopy Mount fixture is terminated with the S1 switch on the Termination board. Set the switch to the ON position to terminate the last fixture. All others on the DMX/RDM line must be set to OFF.

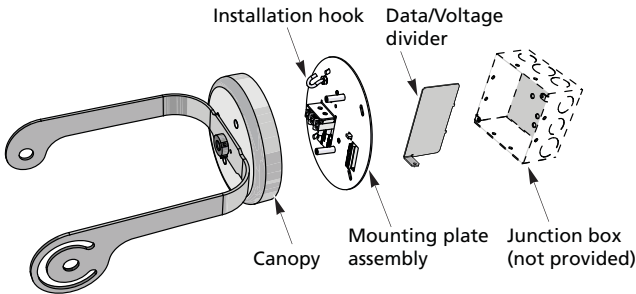


ETC Installation Guide

Desire D22

Installing the Canopy Mount Fixture

The Canopy Mount fixture is installed on to a RACO 232 series 4 x 2-1/8 inch deep double junction box. The fixture is supplied with a divider to separate the data network from the line voltage inside the junction box.



CAUTION: *Separate the line voltage from the data side in the junction box. Install the voltage barrier provided by ETC.*

DMX/RDM Cable Installation

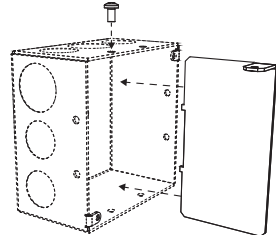
1. Terminate DMX/RDM input from the control source to the junction box.
 - a. Follow the DMX termination kit instructions provided with the product to terminate the control wiring.
 - b. Install the connector with wires terminated to the DMX/RDM Input receptacle on the termination board.
2. Optionally, terminate DMX/RDM thru to the next device in the DMX data run. Up to 32 DMX/RDM devices can be daisy-chained together per data run. See [Control](#) on [page 2](#).
 - a. Follow the instructions provided with the termination kit to terminate the control wiring. Termination kits are ordered separately (see [Control](#) on [page 2](#)).
 - b. Install the connector with wires terminated to the DMX/RDM Thru receptacle on the termination board.
3. Terminate DMX/RDM data signal for the last DMX/RDM device in the data run by setting the termination switch on the termination board to ON. All other devices in the data run maintain the factory default termination switch setting OFF. See [Termination](#) on [page 4](#).

ETC Installation Guide

Desire D22

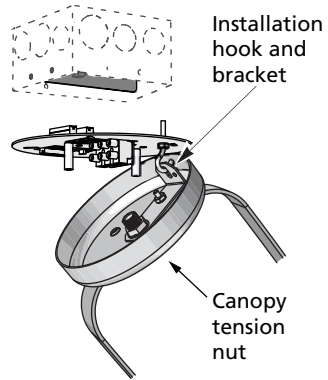
Canopy Mounting Plate Installation

1. Install the divider in the junction box with the provided screw, separating the power side from the data side.
2. Strip the supply power wires back 13 mm (1/2 inch).
3. Use a #2 Phillips screwdriver to remove the two screws retaining the canopy to the mounting plate.
4. Following the label on the mounting plate, attach the supply power wires to the power block on the mounting plate. See [Canopy Mounting Plate and Termination Board](#) on [page 4](#).
5. Attach the power supply ground wire to the mounting plate.
6. Plug in the input DMX/RDM connector (and thru DMX/RDM connector, if used) to the appropriate location on the terminal board.
7. Attach the mounting plate to the junction box, ensuring the cables are properly routed inside the box.



Canopy Fixture Installation

1. Strip the fixture power wires back 13 mm (1/2 inch).
2. Using the hole in the mounting bracket, hang the canopy on the installation hook.
3. Following the label on the mounting plate, attach the fixture power wires to the power block.
4. Secure the fixture ground wire to the mounting plate.
5. If the fixture is the last fixture on a DMX/RDM line, terminate the fixture. See [Termination](#) on [page 4](#).
6. Insert the DMX/RDM connector into the Terminal board.
7. To determine the alignment of the canopy, orient the fixture to where it will need to be focused.
8. Align the holes in the canopy with the mounting posts on the mounting plate and using a #2 Phillips screwdriver, secure the canopy to the mounting plate with the canopy screws.
9. Focus the fixture, and then tighten the canopy tension nut to set additional resistance for the rotation of the fixture.



CAUTION: *Do not overtighten the canopy tension nut.*

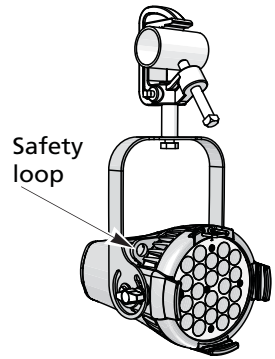
ETC Installation Guide

Desire D22

Installing the Portable Fixture

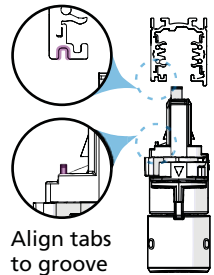
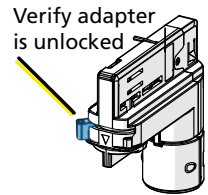
The C-clamp attaches the fixture to the mounting pipe. The position of the fixture can be adjusted once it is mounted. Tightly fasten the C-clamp to the yoke with the provided yoke bolt and lock washer.

1. Place the C-clamp on the mounting pipe, and then tighten the pipe bolt to secure it.
2. Loop a safety cable over the pipe and attach the ends to the safety cable loop on the body of the fixture.
3. Loosen the C-clamp yoke bolt and rotate the yoke as needed.
4. Tighten the bolt to lock the fixture. Tighten the C-clamp pipe bolt to about 18 in-lb. (Approximately finger tight plus up to one-quarter turn.) Do not use excessive force.



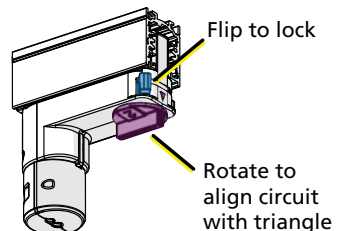
Installing the OneTrack Fixture

1. Before you begin, verify that the adapter is unlocked. (Images at right show just the OneTrack adapter.)
2. Orient the adapter so that the two tabs are aligned with the groove in the track, and then insert the adapter into the track.



WARNING: When using the circuit selection lock, ensure that the selected circuit is a constant power circuit. Dialing into a dimmable circuit may cause fixture damage that will void the ETC warranty.

3. Flip the locking tab to the opposite side to lock the adapter, and then rotate the circuit selection knob to select the correct circuit.
4. Focus the fixture.

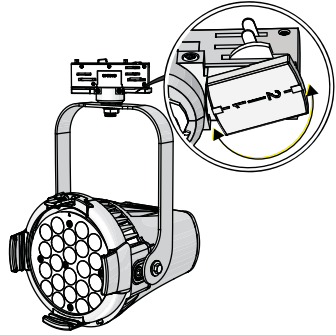


ETC Installation Guide

Desire D22

Installing the DataTrack Fixture

1. Insert the DataTrack adapter into the track. The adapter only fits into the track one way with the tabs nesting into the track's groove.
2. Rotate the locking mechanisms to lock the adapter into place.
3. Use the circuit selection lock to select circuit 1 or 2. The desired circuit number should point toward the center of the adapter.



WARNING: When using the circuit selection lock, ensure that the selected circuit is a constant power circuit. Dialing into a dimmable circuit may cause fixture damage that will void the ETC warranty.

4. Focus the fixture.

Addressing

Set the fixture address (1–510) appropriately for the mode you will use (see the user manual at etcconnect.com for information on DMX modes and their footprints). Each fixture is a separate DMX device when calculating DMX line-loading.

No more than 32 DMX devices can be daisy-chained together on a single run. For runs of fixtures totaling more than 32 DMX devices, use a DMX splitter to split the DMX runs.

When using RDM with track fixtures, ETC recommends connecting no more than 20 fixtures on a single run.

Initial Power Up

Control and configure the Desire D22 over a DMX/RDM control network, or directly from a connected computer running appropriate software. When controlling the Desire D22 directly from a PC, a Gadget II Interface or other DMX/RDM node is required.