

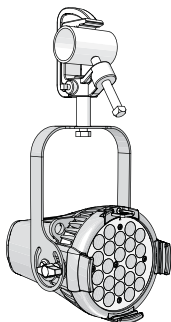
ETC Installation Guide

Desire[®] Series D22

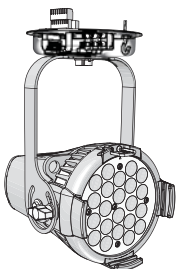
Introduction

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

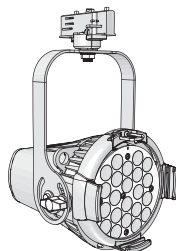
The D22 can be pipe mounted with a C-clamp, canopy mounted, or track mounted. Mounting accessories are available. Contact ETC Customer Service for assistance; contact information is located at the bottom of this page.



Portable



Canopy Mount



Track Mount

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: This fixture must be installed by a qualified electrician in accordance with all national and local electrical and construction codes and regulations.



Corporate Headquarters ■ Middleton, Wisconsin, USA ■ Tel +608 831 4116
Service (Americas) ■ service@etconnect.com
London, UK ■ Tel +44 (0)20 8896 1000 ■ Service: (UK) service@etceurope.com
Rome, IT ■ Tel +39 (06) 32 111 683 ■ Service: (UK) service@etceurope.com
Holzkirchen, DE ■ Tel +49 (80 24) 47 00-0 ■ Service: (DE) techserv-hoki@etconnect.com
Hong Kong ■ Tel +852 2799 1220 ■ Service: (Asia) service@etcasia.com
Web: etconnect.com ■ © 2018 Electronic Theatre Controls, Inc. ■ Product information and specifications subject to change. ■ ETC intends this document to be provided in its entirety.
7411M2100 ■ Rev E ■ Released 2018-10

ETC Installation Guide

Desire D22

Specifications

Environment

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



CAUTION: *Risk of eye injury. Do not stare directly into the light. Do not operate in proximity to flammable materials.*

Control

Portable

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

Canopy Mount

The D22 Canopy Mount fixture is provided with 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 screw-down 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. This connection can be cable type Belden 9729 (or equivalent) to the provided screw terminal. When using Cat5 (or equivalent) cable type for DMX/RDM input, order a Cat5 termination kit from ETC (part number 4100A1013). Cat5 termination instructions and an IDC connector are provided with the termination kit.
- Connection of DMX/RDM thru to the next DMX device. This connection may also be either Belden 9729 or Cat5. The connector is not provided. Order the appropriate DMX termination kit for the cable type used from ETC (Belden 9729: 4100A1012; Cat5: 4100A1013). Termination instructions and the appropriate connector is provided with the termination kit. Up to 32 DMX/RDM devices can be daisy-chained together per data run.

Track Mount

The Track Mount fixture's power and data connections are made through the DataTrack® (EUTRAC®) MultiAdapter mounting adapter. No further wiring to the fixture is required. See the track installation instructions for more information.

ETC Installation Guide

Desire D22

Electrical



WARNING: Ensure that the main power supply is off before installing or wiring a fixture.

- **Portable:** The Desire D22 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 is provided with 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 MultiAdapter, 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.*



Note: *The fixture must be grounded.*

Application-appropriate electrical junction box with cord grips is required. A voltage-separated junction box is required. A RACO 232 series 4 x 2-1/8 inch deep junction box is recommended. The junction box must not interfere with fixture focusing.

The fixture is factory pre-wired. Opening the housing is not required.

The fixture must be connected to a non-dimmable power source. Dimming the unit will damage the fixture and void the factory warranty.

Power Connections

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

ETC Installation Guide

Desire D22

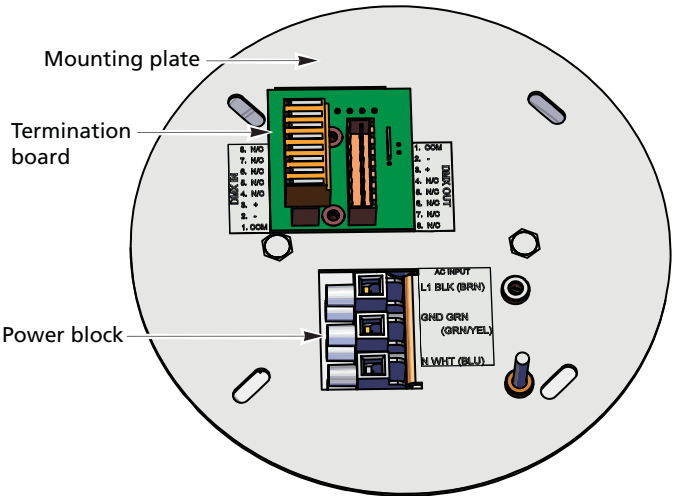
Installation

Termination

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

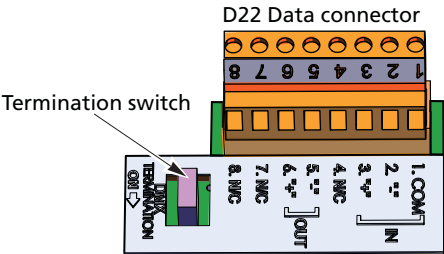
- The Portable fixture is self-terminated.
- The Track Mount fixture is terminated with a DataTrack DMX Term Block (ETC part number 7066A1030).
- The Canopy Mount fixture is terminated on the Termination board inside the canopy.

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.

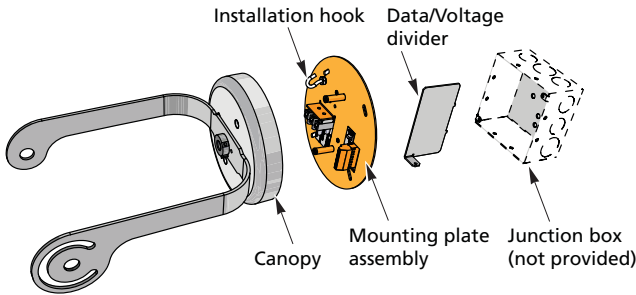


ETC Installation Guide

Desire D22

Installing the Canopy Mount Fixture

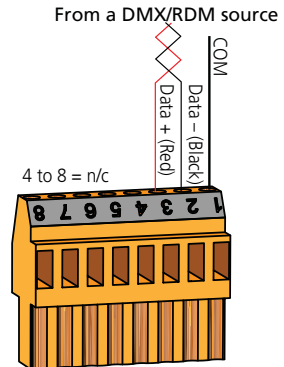
The Canopy Mount fixture is installed on to a RACO 232 series 4 x 2-1/8 inch deep double junction box. The fixture is supplied with a divider to separate the data network from the line voltage inside the junction box.



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.
If using Belden 9729:
 - a: See the *DMX Cable Preparation for Screw Termination Setup Guide* for instructions to prepare and terminate Belden 9729 for DMX input cable to the screw terminal connector.
 - b: Install the screw terminal connector with wires terminated to the DMX/RDM Input receptacle on the termination board.



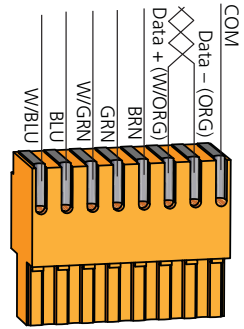
Belden 9729 (or equivalent) wire termination to screw connector

ETC Installation Guide

Desire D22

If using Category 5:

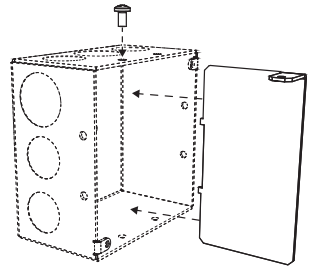
- a: See the *Cat5 Cable Preparation for IDC Termination Setup Guide* for instructions to prepare and terminate Category 5 for DMX/RDM input cable to the insulation displacement connector.
 - b: Install the IDC connector with wires terminated to the DMX/RDM Input receptacle on the termination board.
- 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: See the specific termination setup guide for the type of cable used (either Belden 9729 or Category 5) in the installation. Termination kits are ordered separately.
 - 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](#).



Cat5 (or equivalent) wire termination to IDC connector

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 1/2 inch (13 mm).
- 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.

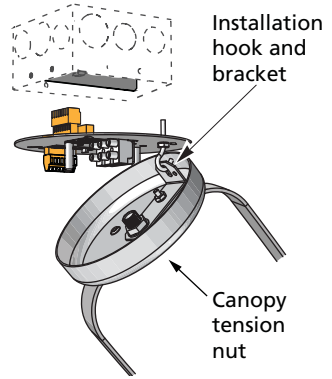


ETC Installation Guide

Desire D22

Canopy Fixture Installation

- 1: Strip the fixture's power wires back 1/2 inch (13 mm).
- 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 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, orientate 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.
- 10: Tighten the canopy tension nut to set additional resistance for the rotation of the fixture.

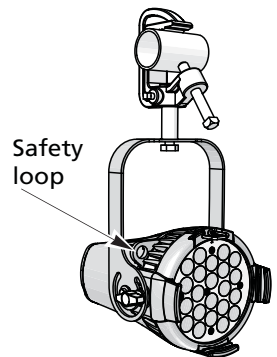


CAUTION: *Do not overtighten the canopy tension nut.*

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 to the desired position.
- 4: Tighten the bolt to lock the fixture.



ETC Installation Guide

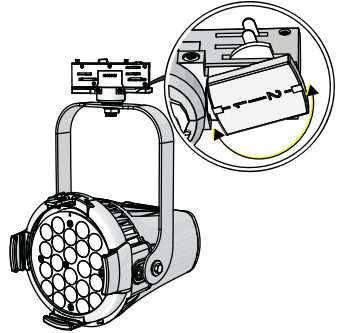
Desire D22



CAUTION: *Tighten the C-clamp pipe bolt to about 18 inch lbs. (Approximately finger tight plus up to one-quarter turn.) Do not use excessive force.*

Installing the Track 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 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

Fixture addresses must be set between 1 and 510. Each Desire fixture must be considered a separate DMX device for the purpose of DMX line-loading calculations.

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, a DMX splitter will need to be used 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 configuration of the Desire D22 can be achieved over a DMX/RDM control network, or directly from a connected computer running appropriate software. When controlling the D22 directly from a PC, a Gadget II Interface or DMX/RDM gateway is required.