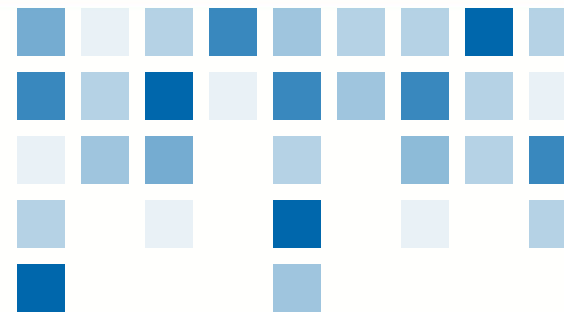
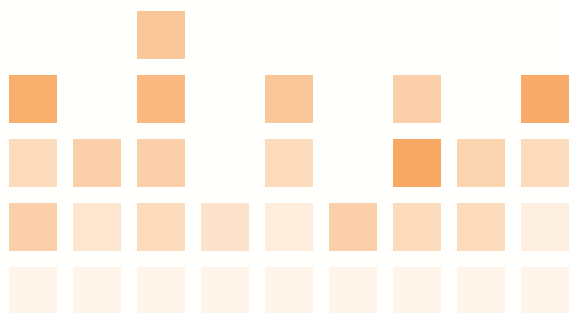




SHACMAN 汽车电器知识培训

F2000-F3000

陕汽进出口公司服务部培训科



第二十六课 德龙驾驶室外围线束

1. 德龙驾驶室外围线束示意图

德龙驾驶室外围线束就是除了驾驶室线束总成之外的，其他与驾驶室线束总成互相连接的电器功能线束的总称。

德龙驾驶室主要的外围线束有：左顶棚线束、右顶棚线束、左车门线束、右车门线束、左前线束、右前线束（见图1）。

另外还有天线馈线、雨刮连接线等（在第26课已经涉及）。

Diagram of the Delong Cab Perimeter Wiring Harness

The Delong cab perimeter wiring harness refers to all the electrical functional harnesses that connect to the cab wiring harness assembly, excluding the cab wiring harness assembly itself.

The main perimeter wiring harnesses for the Delong cab include: left roof harness, right roof harness, left door harness, right door harness, left front harness, and right front harness (see Figure 1).

Additionally, there are antenna feeder lines, wiper connection lines, etc., which were covered in Lesson 26.

德龙驾驶室部分线束

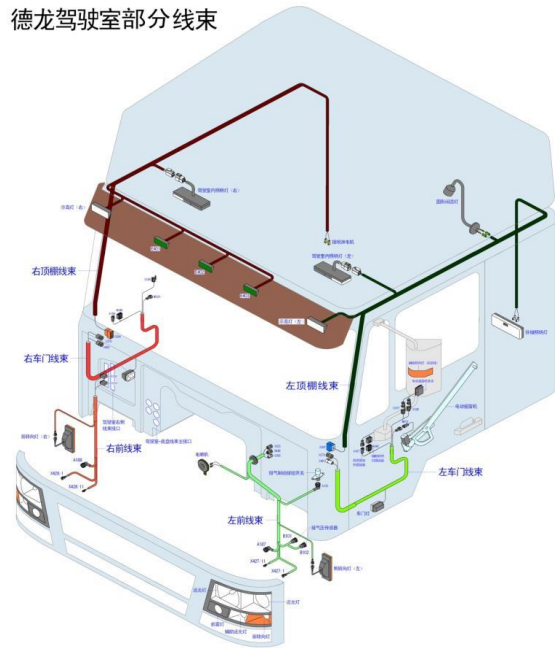


图1 德龙驾驶室外围线束



2. 左、右顶棚线束：在仪表台两侧与驾驶室线束总成对接，线束沿A立柱向上并向后敷设。主要连接驾驶室内照明灯、示高灯等。其中左顶棚线束与驾驶室线束对接的是6孔方插接器X395，线束向后敷设接卧铺照明灯、阅读灯（高顶选装）。右顶棚线束与驾驶室线束对接的是6孔方插接器X394，从右示高灯处有一分支接遮阳罩上的3个绿色示高灯（F3000车型），线束向后敷设并沿后围右侧顺下并穿出驾驶室接喷淋电机。

Left and Right Roof Harnesses: These connect to the cab wiring harness assembly on both sides of the dashboard, running up along the A-pillar and then routed towards the rear. They primarily connect to the interior lights and clearance lights within the cab. The left roof harness connects to the cab harness using a 6-pin square connector, X395. It runs towards the rear to connect to the bunk lighting and reading lights (optional for high-top models). The right roof harness connects to the cab harness using a 6-pin square connector, X394. From the right clearance light, there is a branch that connects to three green clearance lights on the sun visor (for the F3000 model). The harness continues towards the rear, runs down along the right side of the rear wall, and exits the cab to connect to the spray motor.



3. 左、右车门线束：在仪表台两侧与驾驶室线束总成对接，线束连接车门内的门灯、电动摇窗机（选装）、电加热后视镜（选装）、电动后视镜（选装）、辅助转向灯（F3000车型）、中控门锁（选装）。

图2所示线束为F3000左车门线束中最复杂的配置（电动摇窗机，电加热后视镜，电动后视镜，中控门锁，参考零件号：DZ95189772117）。

Left and Right Door Harnesses: These connect to the cab wiring harness assembly on both sides of the dashboard. The harnesses connect to the door lights, electric window regulators (optional), electrically heated mirrors (optional), electric mirrors (optional), auxiliary turn signals (F3000 model), and central door locks (optional).

The harness shown in Figure 2 represents the most complex configuration of the F3000 left door harness, which includes the electric window regulator, electrically heated mirrors, electric mirrors, and central door locks (reference part number: DZ95189772117).

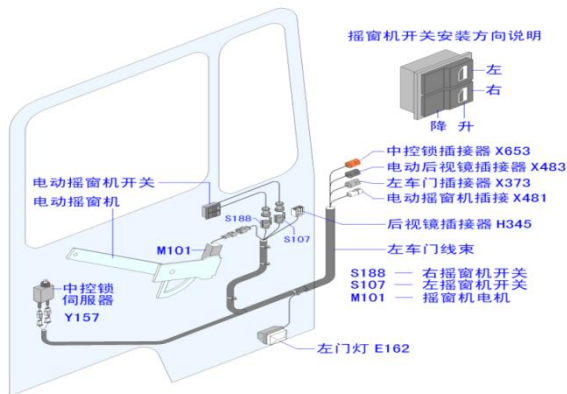


图2 左车门线束结构及在车门内的敷设示意图



其中7孔圆插接器X373为最常规的与驾驶室对接的插接器，主要控制门灯（又称踏步灯）、辅助转向（后视镜上的转向灯）、后视镜加热。9孔方插接器X481为电动摇窗机插接器。黄色7孔圆插接器X653为中控锁插接器。7孔圆插接器X483为电动后视镜插接器。线束进入车门后一路向上敷设，分出后视镜插接器H345（白色8孔方插接器），控制后视镜内的转向灯、电加热装置、电动调整装置。同时分出的还有2个电动摇窗机开关插接器（5孔圆插接器）和电动摇窗机电机插接器M101（2孔），其中编号S107的插接器接靠上的电动摇窗机开关，控制左车门摇窗机的升降，编号S188的插接器接靠下的电动摇窗机开关，控制右车门的摇窗机。另一路线束沿车门向后敷设至门锁附近，接中控门锁伺服器，其中2孔插接器接的是伺服电机，3孔插接器接的门锁限位开关。

The 7-pin round connector X373 is the most common connector interfacing with the cab, primarily controlling the door light (also known as the step light), auxiliary turn signal (the turn signal on the mirror), and mirror heating. The 9-pin square connector X481 is for the electric window regulator. The yellow 7-pin round connector X653 is for the central door lock. The 7-pin round connector X483 is for the electric mirror. Once the harness enters the door, it routes upwards and splits off to connect the mirror's connector H345 (white 8-pin square connector), which controls the mirror's turn signal, heating element, and electric adjustment. Additionally, there are two connectors for the electric window switches (5-pin round connectors) and the electric window motor connector M101 (2-pin). Connector S107 connects to the upper electric window switch, controlling the left door's window regulator, and connector S188 connects to the lower electric window switch, controlling the right door's window regulator.

Another branch of the harness routes towards the rear of the door, near the lock, and connects to the central door lock actuator. This includes a 2-pin connector for the servo motor and a 3-pin connector for the door lock position switch.



图3所示线束为F3000右车门线束中最复杂的配置（电动摇窗机，电加热后视镜，电动后视镜，中控门锁，参考零件号：DZ95189772116）。

The harness shown in Figure 3 represents the most complex configuration of the F3000 right door harness, which includes the electric window regulator, electrically heated mirrors, electric mirrors, and central door locks. Reference part number: DZ95189772116.

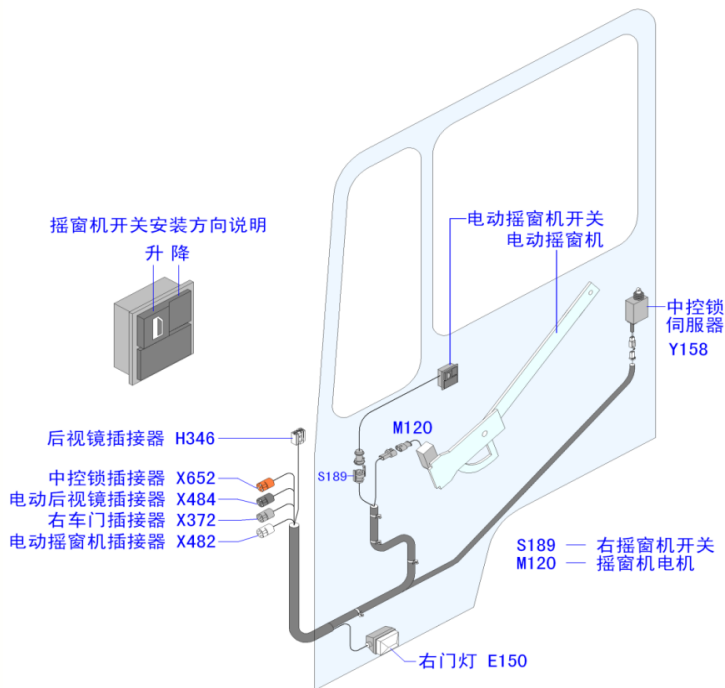


图3 右车门线束结构及在车门内的敷设示意图



其中7孔圆插接器X372为最常规的与驾驶室对接的插接器，控制功能同左车门线束。7孔圆插接器X482为电动摇窗机插接器。黄色7孔圆插接器X652为中控锁插接器。7孔圆插接器X484为电动后视镜插接器。后视镜插接器H345（白色8孔方插接器）并不进入车门，而是直接在驾驶室右前围处与后视镜上的线束对接。线束进入车门后一路向上敷设，分出右车门电动摇窗机开关插接器S189（5孔圆插接器）和电动摇窗机电机插接器M120（2孔）。另一路线束沿车门向后敷设至门锁附近，接中控门锁伺服器，右门只有接伺服电机的2孔插接器，没有限位开关。

The 7-pin round connector X372 is the most common connector interfacing with the cab, controlling the same functions as the left door harness. The 7-pin round connector X482 is for the electric window regulator. The yellow 7-pin round connector X652 is for the central door lock. The 7-pin round connector X484 is for the electric mirror.

The mirror connector H345 (white 8-pin square connector) does not enter the door but instead directly connects to the mirror's wiring harness at the right front panel of the cab. Once the harness enters the door, it routes upwards, splitting off to the right door electric window switch connector S189 (5-pin round connector) and the electric window motor connector M120 (2-pin).

Another branch of the harness routes towards the rear of the door, near the lock, connecting to the central door lock actuator.

The right door has only a 2-pin connector for the servo motor, with no position switch.



4. 左前、右前线束:

主要连接左、右前照灯。其中左前线束结构（本图以F3000车型为例，其他车型略有差别）如图4所示，线束上方从驾驶室前端的穿线孔穿入驾驶室与驾驶室内对应插接器（9孔方插接器X393，7孔圆插接器X323，7孔圆插接器X642）对接，向下依次接电喇叭（驾驶室前方横梁上），排气制动按钮（驾驶室左底板上，有的车型在转向柱右侧安装排气制动开关），气压传感器（兼低压报警开关，安装在左上车踏板支架处），前照灯（圆插接器A187，近光灯、远光灯、位置灯），前转向、辅助远光灯（三角形插接器X427/I），前雾灯（2孔插接器X427/II）以及侧转向灯（保险杠后上车踏板前，2孔插接器对接）。

Left Front and Right Front Harnesses:

These primarily connect to the left and right headlights. The structure of the left front harness (using the F3000 model as an example, with slight differences in other models) is shown in Figure 4. The upper part of the harness passes through the wiring hole at the front end of the cab and connects to the corresponding connectors inside the cab (9-pin square connector X393, 7-pin round connector X323, 7-pin round connector X642).

From there, it connects downward in the following order. Electric horn (mounted on the front crossmember of the cab). Exhaust brake button (located on the left floor of the cab, with some models having the exhaust brake switch installed on the right side of the steering column). Air pressure sensor (also serves as a low-pressure alarm switch, mounted on the left entry step bracket). Headlights (round connector A187 for low beam, high beam, and position light). Front turn signals, auxiliary high beam (triangular connector X427/I). Front fog lights (2-pin connector X427/II). Side turn signals (located in front of the entry step behind the bumper, connected via a 2-pin connector)

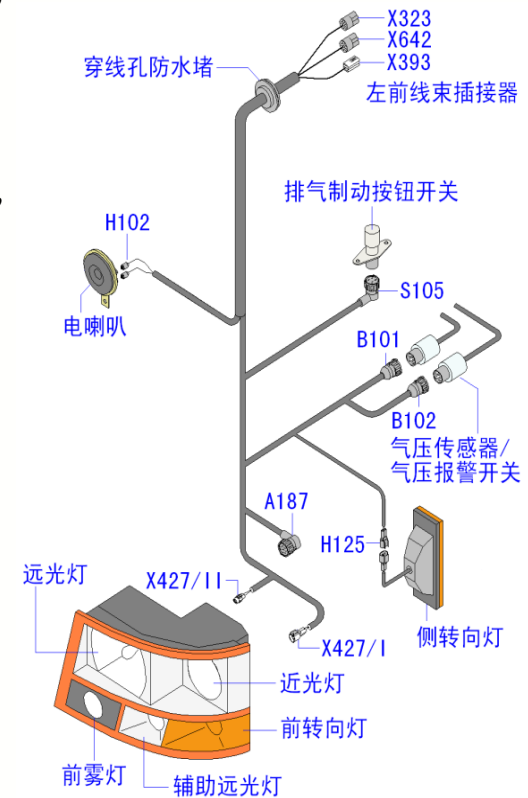


图4 左前线束结构示意图



右前线束结构（本图以F3000车型为例，其他车型略有差别）如图5所示，上部通过驾驶室右前部的接线插槽与驾驶室线束的X392、X315插接器对接（均为6孔方插接器）。向下顺次为侧转向灯，前照灯，前转向、辅助远光灯，前雾灯，灯光部分插接器种类、数量与左前线束相同。

The structure of the right front harness (using the F3000 model as an example, with slight differences in other models) is shown in Figure 5. The upper part connects to the cab harness's X392 and X315 connectors (both 6-pin square connectors) through the wiring slot at the front right of the cab. Moving downward, it sequentially connects to the side turn signals, headlights, front turn signals and auxiliary high beams, front fog lights. The types and quantities of lighting connectors are the same as those in the left front harness.

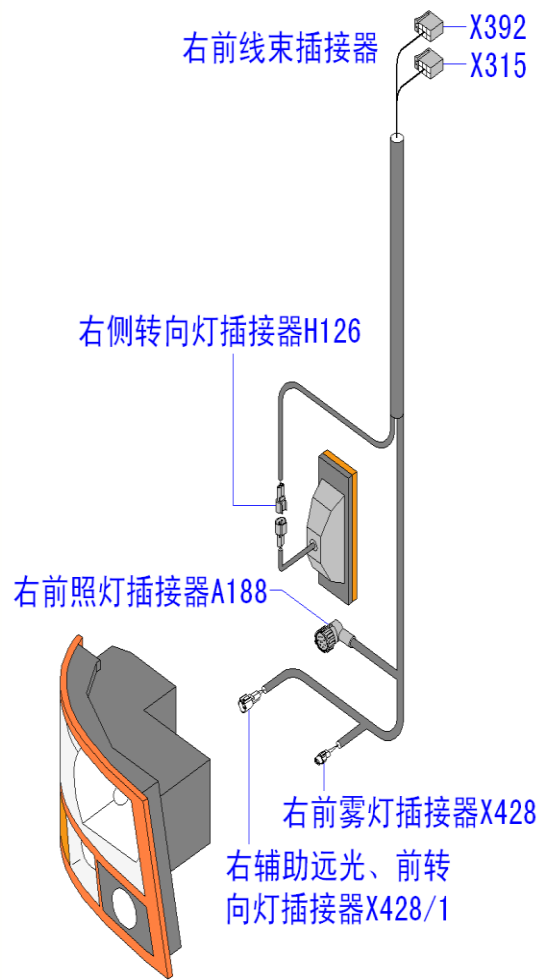


图5 右前线束结构示意图



图6 所示为前部线束敷设的实物照片，其中右前线束与驾驶室对接的接线槽由线束护盖保护。

The photograph in Figure 6 shows the actual installation of the front harness. The wiring slot where the right front harness connects to the cab is protected by a harness cover.

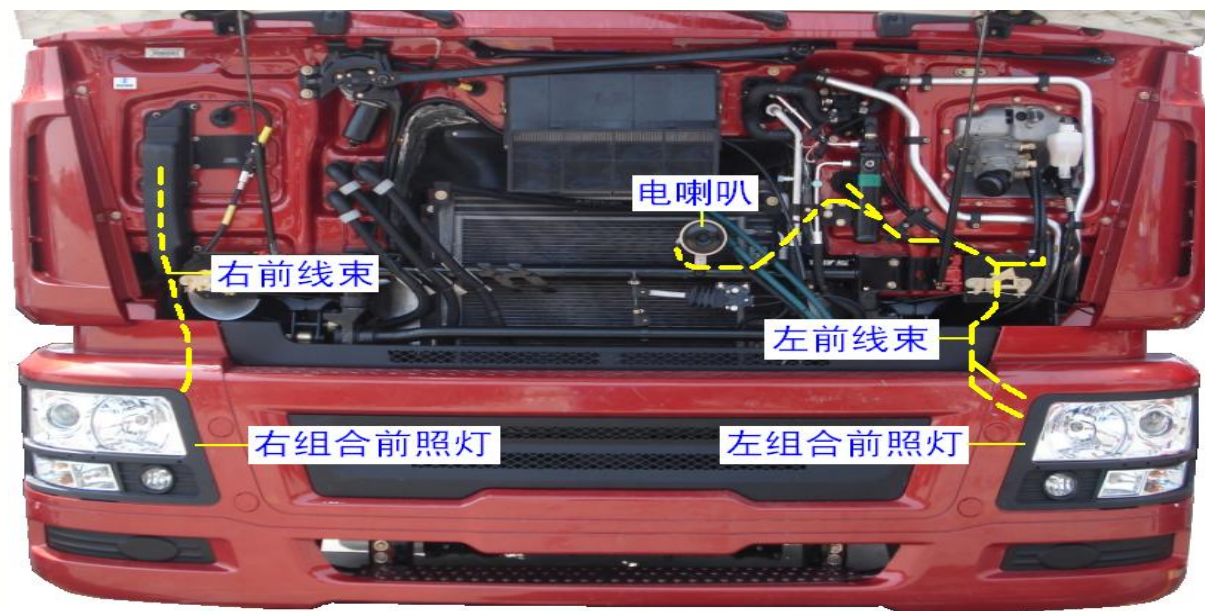


图6 左前、右前线束的实际敷设路径

