



Fire Extinguisher System Manual for FIA Standard 8865

2 Engine Nozzles, 1 cockpit nozzle.

FX G-TEC 2400R3 Advanced Discharge System

Please read all parts of this manual carefully before you proceed to install your new purchase. The system has been carefully developed to meet the new standard 8865 2015 which is part of the FIA's new program in making Motorsport a much safer sport for all who take part.

The new standard has been designed to meet much tougher criteria, testing with much larger and hotter fires with greater quantities of fuels together with plastics and masking elements to extinguish. In this new standard electrical components are now IP rated and other parts have been vigorously tested to meet certain BSI standards.

To comply with new FIA regulations with effect from January 2018, this system has been fitted with a pressure release valve which is covered with a red circular label. The pressure release valve is designed that if in very high temperatures (above 80°C – which is the maximum homologated temperature for the system to operate at – it has a safety margin above 80°C) and the internal pressure becomes too great, the pressure will be released through the valve and therefore empty the extinguisher. This will be indicated by the red circular label being damaged. If this occurs, the extinguisher cannot be used and must be returned to the manufacturer for refill. It will not be accepted by Scrutineers.

FIA

It must be emphasised that any plumbed in fire extinguisher system is mainly designed to delay the development of the fire and consequently give the driver and co-driver time to exit the car; the system is not designed to put out the fire and prevent the car from burning.

Please do not tamper with, make changes or use non FEV parts on your new fire extinguisher system as this will invalidate the Homologation and affect the performance of the product. If any new parts are needed please call FEV on 0044 (0) 1243 55 55 66

You will have to purchase a 9 volt PP3 battery for the control box.

Also if any changes have been made to this product from the specification, it could in effect stop you racing.

Fire Extinguisher Valve Co Ltd

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VAT Reg No: 737 3307 34 Company Reg No: 4643893



Contents.

2 Plumbing schematic drawings

1 Installation instructions

1 cylinder FE-CYL-2400R - cylinder 114mm x287mm

2 Cradle straps FE-CRL-S-3300

1 Hard-line hose FE-H-HOS

1 33 gram remote charge FE-REM-33-CHAR

1 Remote clamp FE-REM-C-3300

2 Remote clamps bolts FE-REM-C-B-3300

4.6mtr of 8mm Aluminium tubing FE-ALI-8-3300

10 pipe clips FE-P-CLIPS

1 Cockpitbar nozzles FE-16-JET BAR-NOZ-1.0

2 Engine tri nozzles black FE-TRI-NOZ-1.5-B

1 Y connector 8mm metal FE-Y-CON-8-M cylinder installed in the rear

1 T connector 8mm metal FE-T-CON-8-8-M cylinder installed in the front

1 T connector 8mm metal FE-T-CON-8-8-M standard engine connector

1 Straight connector 8mm FE-ST-CON-8 optional

1 90° 8mm stem FE-90-8-ST optional

1 internal firing button FE-INT-FB

1 fire button metal shroud FE-INT-FB-S-M

1 External fire button FE-EXT-FB

1 Control box 8865 V2 FE-CB-8865, Red control box, battery not included.

1 Control box loom FE-CB-L-8865



Installation of cylinder and other components.

Cylinder.

Find a suitable place either behind the drivers or co-driver's seat or in the co driver's footwell to fix the fire extinguisher cylinder, the cylinder assembly can be fixed either in a transverse or longitude position. There is no need to take the cylinder out of the cradle bracket and straps as the cylinder comes already installed into the cradle bracket. The newly designed cradle bracket has access to the four fixing holes and only needs marking through onto the car floor where you want to fix the assembly. Once the markings have been made put the assembly to one side then carefully drill holes for 4 off fixing bolts – we recommend M6 bolts with shake-proof washers and Nyloc nuts, bolt the cylinder assembly to the floor.

Please note the system must be installed in accordance with the championship technical regulation.

Plumbing connectors

Please note that if the cylinder is going to be installed in the front foot well or in the back of the car behind the driver or co driver's seat, 1 of the different connector must be used for front or back installation. See contents list.

Cylinder Installed in Front

See assembly drawing in the user manual. 2off Tee connectors

Cylinder Installed inRear

See assembly drawing in the user manual. 1off Y connector, 1off Tee connector

Optional connector

One inline straight connector and 90 degree stem elbow can be used to aid installation if needed

Cockpit nozzle

The one cockpit 16 jet bar nozzle is designed to be fitted between the drivers and co driver's seat with the 10 jets facing forward and the 6 jets pointing upwards and just behind the two seats towards the roof. The nozzle should be fixed either on a preformed bracket, or by fixing a pipe clip supplied around the metal tubing close to the push in connector attached to the nozzle and fixed through the metal tab on the other end of the nozzle.



Engine nozzles.

The two engine nozzles must be fitted through the cockpit/engine bulkhead approximately 30 centimetres each side of centre and as near to the top as possible (unless obstructed) in a horizontal position again unless obstructed, nozzle hole size 13.5mm.

Aluminium tubing.

The pipework for the system is Aluminium. Route the pipework neatly around the car to the different locations. When making bends in the piping try and make a minimum radius of 50mm, and when cutting the pipes make sure the ends are square or use a pipe cutter if possible and de-burr the ends, push all ends of the pipes into the various fittings, they should push in 18mm.

See separate plumbing instructions for the complete plumbing schematics.

Control box.

Mount the control box in a suitable position where it can be reached by the driver and co-driver, making sure that the LED lights are visible to the driver and co-driver. Please ensure that the wiring loom for the control box is fixed suitably so that it cannot be damaged or become a hazard.

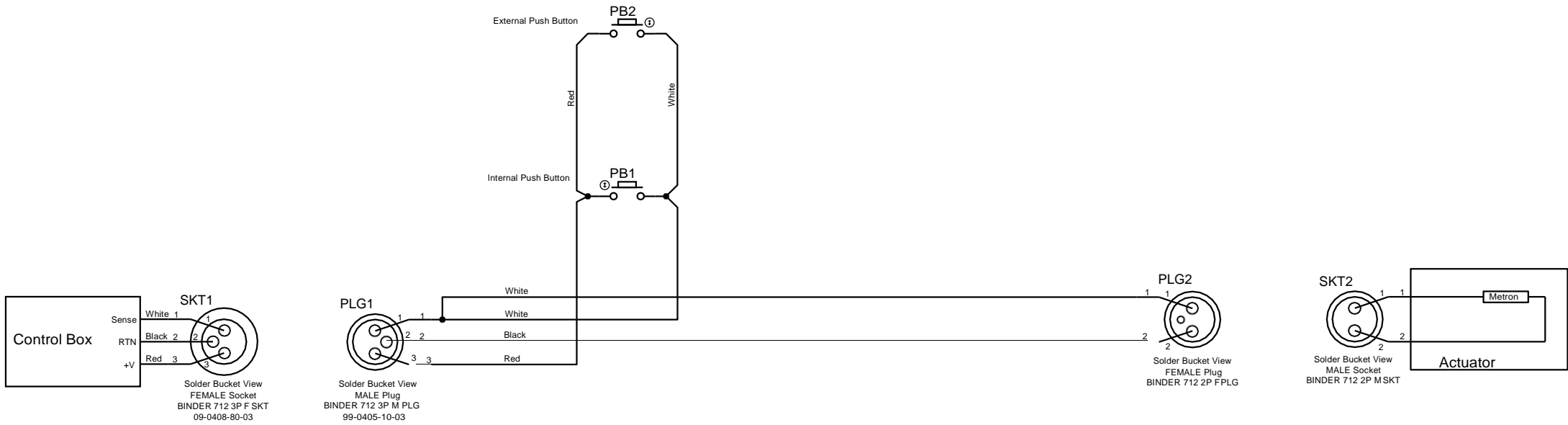
Wiring loom

The wiring loom has two screw connectors; the connector on the longest length of cable is a two pin connector and connects to the plug on the remote charge which is attached to the fire extinguisher **connect this lead last and make sure the control box is in the test position.**

The shorter length of cable with the three pin plug attached connects to the control box. The branch in the loom goes to the internal fire button, make a suitable connection. Using the separate (supplied) cable already attached to the external fire button fit the button externally then route the cable inside the car to attach to the connections of the internal fire button.

Activation buttons.

There are two activation buttons, one internal and one external. Mount the internal button in a position within easy reach for the driver and co-driver where applicable (19mm diameter hole), mount the external button (22mm) next to the electrical cut off switch. Apply the E decal label next to the external firing switch.



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F.E.V. CONTROL BOX - V2 - FIA 8865

INSTRUCTIONS

The control box is supplied with a separate wiring loom with a connector on each end; the longest length of wire has a male 2-pin IP67 rated plug for connection to the female 2 pin IP67 socket in the Remote Charge Cartridge, when connected they are screwed together to make a seal. The other end of the loom is fitted with a male 3 pin IP67 rated waterproof plug, this plug connects to the female 3 pin IP67 socket in the bottom of the control box and when connected they are screwed together to make a seal. The branch in the loom goes to the internal fire button, make a suitable connection. Using the separate (supplied) cable already attached to the external fire button fit the button externally then route the cable inside the car to attach to the connections of the internal fire button.

Setting up The System

The control box has a 2 position on-on toggle switch to select the function.

The up position is ARM with a red LED and down position TEST with an orange LED.

Test position LED orange

To test the system put the switch into the TEST position and press either of the firing buttons – external or internal. If the TEST is successful, the Orange LED will be on for 10 seconds. If the TEST is unsuccessful the Orange LED will flash for 10 seconds or more, indicating a fault in one of the following items – low battery, electrical discontinuity, button to trigger the system, plug on the remote charge or firing actuator in the remote charge.

Armed Position red LED

Switch to the armed position - whenever the switch is moved from the test to the armed position, the control box will run an automatic test to ascertain that there is no anomaly, only after those checks will the LED start to flash continually indicating the control box is operational. **Only press the fire button if needed, this will activate the system.**

Recommend after use.

Whenever the control box is not in use position the switch into test mode – all the lights are off - this will enable the control box to go into sleep mode and save battery. If the vehicle is not going to be used for a long period, we would recommend you remove the battery from the control box.

Preparation for race

Check all wiring connections and run through the test position procedure before each race to test for any anomaly.

Battery fitment

This control box is IP67 rated. This is why the box has to be removed from fitment and the four screws removed from the back of the box to replace the battery - battery type 9 volt PP3 alkaline

CAD DRAWING: MANUAL CHANGES NOT ALLOWED

THIRD ANGLE PROJECTION

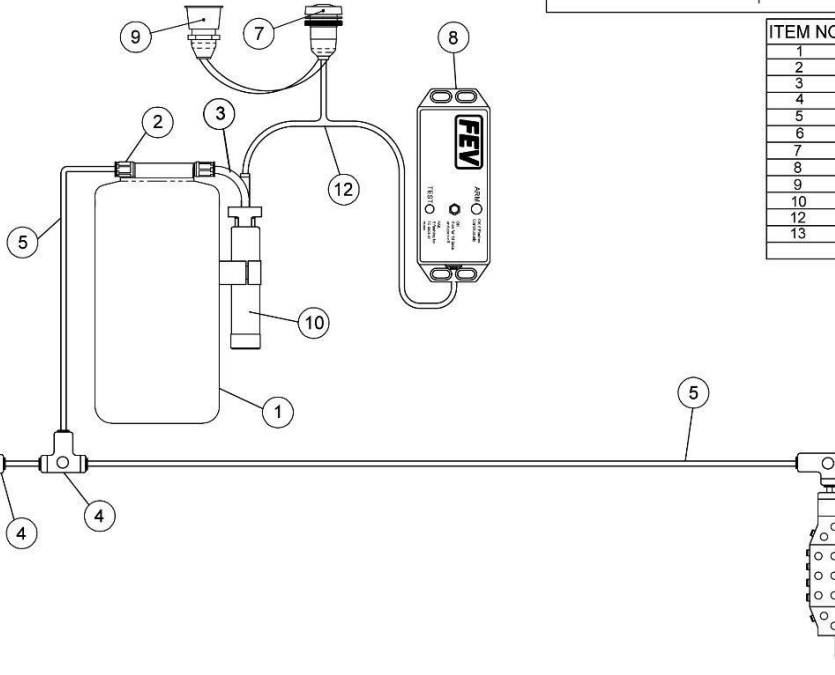
DO NOT SCALE

IF IN DOUBT ASK

ITEM NO	PART NUMBER
1	CYL 3300R / CYL3300R-D
2	FE-8x 1/8 (M)
3	FEB = HOSE
4	FETCOM 8 (M)
5	FE 8mm ALI PIPE
6	FE TRI BLACK
7	FE-EXT FB
8	FE FIA BOX
9	FE INT FB
10	FES REM 33 CHAR
12	FE-FIA HARNESS
13	FE SPRAY BAR 16 JET

ENGINE BULKHEAD

ENGINE NOZZLES



ISSUE	CHANGED	DATE

CYLINDER INSTALLED IN FRONT

FIRE EXTINGUISHER VALVE Co
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WEST SUSSEX
TEL: 01243 555596 FAX: 10243 555660
www.f-e-v.co.uk

TITLE
ASSEMBLY SYSTEM REMOTE

DRAWING NO. FXGTEC-3300R
FXGTEC-3300R-D

SHEET 1 OF 1

A4

CAD DRAWING: MANUAL CHANGES NOT ALLOWED

THIRD ANGLE PROJECTION

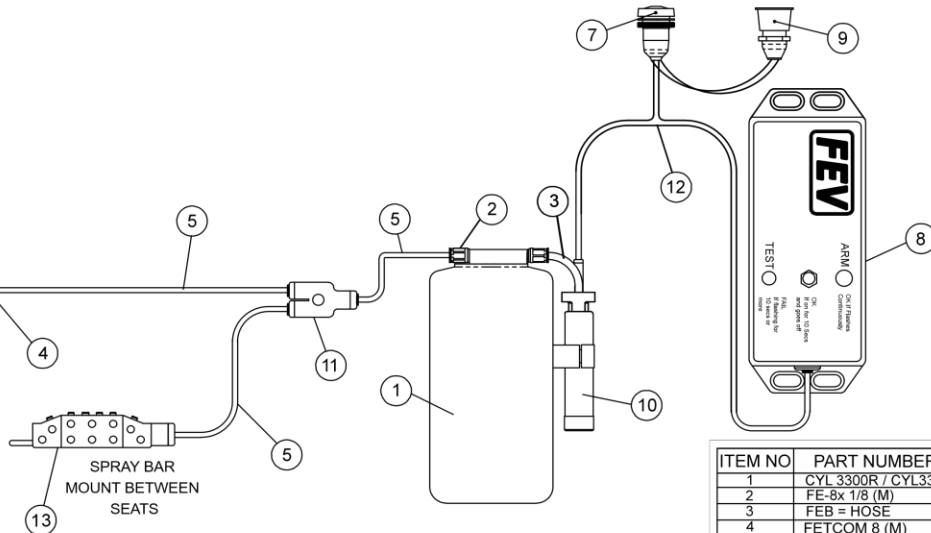
DO NOT SCALE

IF IN DOUBT ASK

ENGINE BULKHEAD

ENGINE NOZZLES

SPRAY BAR MOUNT BETWEEN SEATS



ISSUE	CHANGED	DATE

CYLINDER INSTALLED IN REAR

FIRE EXTINGUISHER VALVE Co
UNIT 10
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10	FES REM 33 CHAR
11	FE-Y-CON-8-8-M
12	FE-FIA HARNESS
13	FE SPRAY BAR 16 JET

TITLE
ASSEMBLY SYSTEM REMOTE

DRAWING NO. FXG TEC 3300R3
FXG TEC 3300R3-D

SHEET 1 OF 1

A4

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FX G-TEC2400R3

101. INSTALLATION DANS L'HABITACLE / COCKPIT INSTALLATION WITH CYLINDER AT FRONT

- a) Emplacement et orientation du corps
Location and orientation of body
- b) Emplacement et orientation des buses
Location and orientation of nozzles
- c) Précaution à prendre lors de l'installation du système
Special care to take with the installation of the system

Mount horizontally in front of the passengers Seat, transversely or longitudinally.

Located between passenger and drivers seats

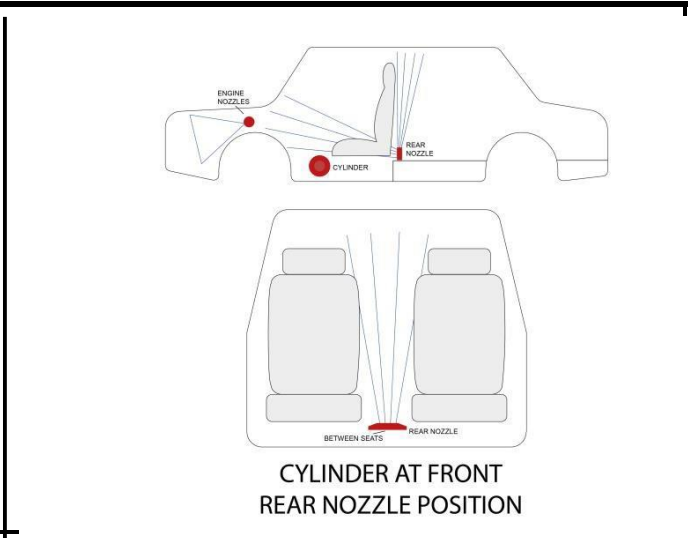
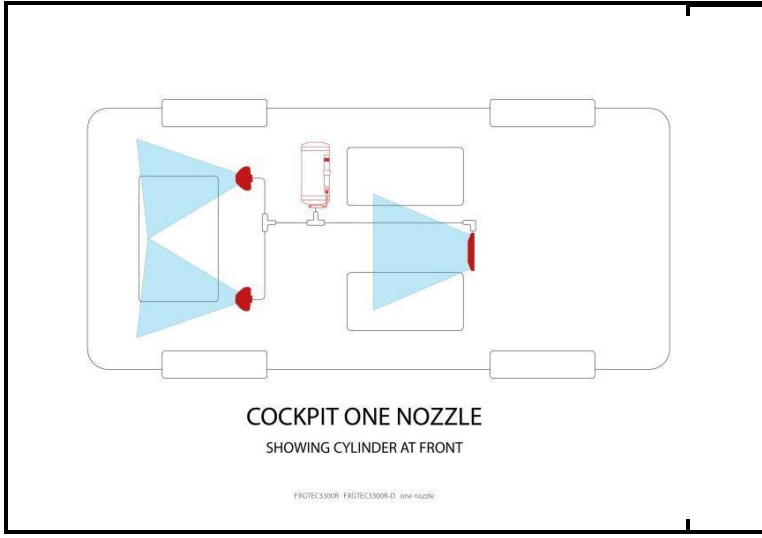
Make sure the nozzle is installed onto the floor with 10 jets facing forward and 6 jets pointing towards the roof just behind back of seats

E1-1) Installation dans l'habitacle (emplacement et orientation du corps)

E1-2) Installation dans l'habitacle (emplacement et orientation des buses)

Cockpit installation (location and orientation of body)

Cockpit installation (location and orientation of nozzles)



102. INSTALLATION DANS LE MOTEUR / ENGINE INSTALLATION

- a) Emplacement et orientation du corps
Location and orientation of body
- b) Emplacement et orientation des buses
Location and orientation of nozzles
- c) Précaution à prendre lors de l'installation du système
Special care to take with the installation of the system

N/A

Mount through bulkhead or on pre-formed brackets approximately 300mm each side of centre only move if obstructed.

Check all connections are secure.

E2-1) Installation dans le moteur (emplacement et orientation du corps)

E2-2) Installation dans le moteur (emplacement et orientation des buses)

Engine installation (location and orientation of body)

Engine installation (location and orientation of nozzles)

