

DDAC MFG System Installation Guide (For Model # DDAC-PDS-SYS-2)

STEPS FOR DDAC MFG SYSTEM INSTALLATION

STEP 1: Install Generator

(This step is for rear mounts for other mounting options See Page 5) Install the Generator on top of the overhead guard and at least 4" from the frame. (Fig. 1) It should be as far from the LED light as possible. (Fig. 2) Use the U-Bolts to secure the Generator to the overhead guard. (Fig. 3)

STEP 2: Install Warning Module

Connection to generator should be pointed up. (Fig. 4) Use supplied Zip Ties to secure above and below the warning module. (Fig. 4) Place adhesive side of the Warning Module to the frame of the forklift (frame must be cleaned before applying adhesive) where it can be seen and heard by the operator. (Fig. 5) An optional Auxiliary Light (Light Only Warning Module) can be connected to the Generator to provide an additional visual alert. (Fig. 6)

STEP 3: Warning Module Connections

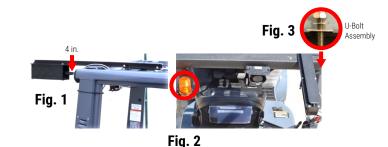
The cable exiting the warning module with the bare wires goes to the machine for power. (Fig. 7) The cable exiting the warning module with the connector goes to the Generator. (Fig. 8) **Note:** Zip Ties included for attaching the cables to the frame of the machine.

STEP 4: Making the Connection to Machine Power

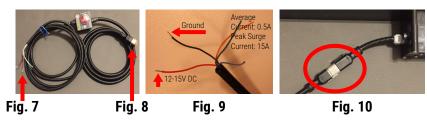
Connect to a switched and fused (10A min) circuit. (Fig. 9) ▲ DO NOT APPLY VOLTAGE TO THE INCORRECT WIRES, IT MAY RESULT IN HARDWARE DAMAGE.

STEP 5: Making the Connection to the Generator

Connect Warning Module (Plug) to Generator (Receptacle). (For weather shield mounts the connection is already made inside the weather shield). (Fig. 10)







STEPS FOR DDAC MFG SYSTEM INSTALLATION

STEP 6: Cab Silencer

Place the Cab Silencer within 30" of the Operator's PAD AND 4ft away from the generator. The best location is behind the operator's seat. The Cab Silencer will blind the CAM if installed on the overhead guard. (Fig. 11)

▲ In order to avoid battery, drain while the vehicle is off, connect Cab Silencer to a switched and fused (5A min) circuit.

STEP 7: Silent Zone Adjust

- Factory set to 30".
- To decrease the size, unscrew the cap from the Cab Silencer.
- Activate a PAD and turn on truck.
- Using a 3/32" slotted screwdriver, turn the Pot until the PAD silences at the desired location.
- Replace cap.
- ▲ Ensure the Silent Zone does not extend outside of the vehicle. (Fig. 12)

STEP 8: Volume Adjust Using Range Adjust Tool

- The clear plastic cover on the Warning Module can be turned to reduce the sound.
- Ensure all other MFGs and PADs within 90 feet are off.
- Remove the Clear Pull Tab and Power on the range adjust tool within 4 feet of MFG. The warning module will sound. (Fig. 13)
- Press the Red switch to increase the volume of the warning module and the Black switch to decrease the volume of the warning module.
- A Range Adjust Tool will NOT Work in the Silent Zone. (Fig. 14)

STEP 9: Range Adjust Using Range Adjust Tool

- The field is factory set to 30 feet Danger Zone.
- Ensure all other MFGs and PADs within 90 feet are off. (Fig. 15)
- Power on 1 PAD at the distance the field should be set to and leave it there.
- Remove the Clear Pull Tab and Power on the range adjust tool within 4 feet of MFG.
- The warning module will sound. Hold down both switches for 5 seconds. Release.
- Press the Red switch to increase the range and the Black switch to decrease the range. (Fig. 16)
- The maximum danger range using a DDAC PAD is 30 feet and for a Type A PAD it is 39 feet.

All adjustments in Steps 7-9 need to be done by a professional.



Fig. 12

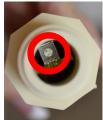






Fig. 13

Fig. 14





Fig. 16

Fig. 15

STEPS FOR DDAC MFG SYSTEM INSTALLATION

STEP 10: Volume Adjust Using Potentiometers

For Units in Weather shields see Step 8 to adjust Range.

- The clear plastic cover on the Warning Module can be turned to reduce the sound. (Fig. 17)
- If the sound still needs to be reduced, remove the bottom cover of the generator with a Phillips head screwdriver.
- Turn on the truck and activate the PAD.
- Adjust the "VOL" pot with a 3/32" slotted screwdriver. (Fig. 18) Slowly turn the VOL pot counterclockwise to decrease and clockwise to increase the volume. Do NOT turn beyond the "STOP".
- Return the bottom cover if Volume is correct.

STEP 11: Range Adjust Using Potentiometers

For Units in Weather shields see Step 9 to adjust Range.

- Remove bottom cover see step 10.
- Have a Pedestrian with a PAD at the desired Danger Zone Limit. Adjust the "PWM" pot with a 3/32" slotted screwdriver. **(Fig. 19) Slowly** turn the PWM pot (counterclockwise to decrease and clockwise to increase the Zones) until the danger zone alerts at the desired distance. **Do NOT turn beyond the "STOP"**. Return bottom cover.

▲ To ensure proper functionality under all conditions the Danger Zone limit should not exceed 30 feet with DDAC PADs and 39 feet with Type A PADs. If a larger field is required, contact Frederick Mobile Instrumentation for options.

STEP 12: Functionality of Switches

Switch 1 - In the ON position (switch towards point of arrow) the sound maintains its setting under all conditions. In the off position the sound is maximum when entering a zone for the first 3 seconds then the sound level returns to its setting (Fig. 20).

Switch 2 - In the ON position disables Collision Avoidance (only applicable if CAM installed on unit) (Fig. 20).

- **\triangle** Check the Direction of the Arrow on Switch for Correct Orientation (\uparrow UP = ON).
- ▲ These Switches are for Gen-2 Systems. (Fig. 21)







Fig. 18



Fig. 19



Fig. 21

CAM ALERTS

FUNCTION

30 Second Re-Alert

Continuous CAM

2 Second Timeout (STND)

60 Second Re-Alert

SW1

ΟN

OFF

ΟN

OFF

SW1

ΟN

ΟN

OFF

OFF

Fig. 20

STEPS FOR DDAC MFG SYSTEM INSTALLATION

STEP 13: Alerting Signals

CAM Alert (Truck to Truck) (If Equipped) (Fig. 22)

• Generator will beep rapidly for 2 seconds when it receives the CAM signal from the other truck. The signal will reset when a PAD comes in the Warning Zone.

PAD (Pedestrian Alert) (Fig. 23)

• Warning Zone - Series of 3 beeps.

• Danger Zone - Continuous signal.

▲ LOW BATTERY ON PAD: Series of 2 beeps. PAD will not indicate Alert Signals!

NOTE: A Generator/Truck without a CAM can be used with a CAM Truck to check the field. The NO CAM Truck will receive the warning of the CAM Truck. The CAM Truck will not activate an alarm on it's own truck.

STEP 14: Fault Code Identification

1. Warning Module

The Warning Module will beep at a Rate of 2 Beeps every 5 Seconds. This Alert Pattern is Notably Different than any other Alerts (Warning, Danger, Collison Avoidance).

2. Yellow LED on Magnetic Field Generator (MFG)

To Identify the Fault, you must be able view the Yellow LED that is Located on the Magnetic Field Generator (MFG) beside the Blue (Power) LED.

a. If the Yellow LED is NOT Blinking the Fault is; The MFG is NOT Communicating with the Collision Avoidance Module.

i. Return to Factory using RMA.

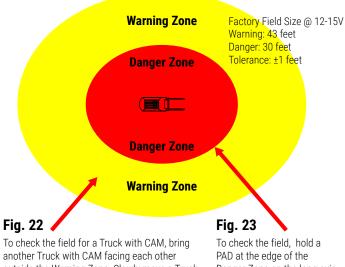
- b. If the Yellow LED is Blinking ONCE the Fault is; The **Pre-Set** Magnetic Field is NOT able to reach the Desired (TARGET) Setting. Check the Following:
 - i. Mounting, Review Step 1, NOTE: MFG CANNOT be Completely Enclosed in 360° of Metal.
 - ii. Re-Set the Magnetic Field Distance, Review Steps 9 & 11.

iii. Return to Factory using RMA.

c. If the Yellow LED is Blinking Twice the Fault is; LOW Input Voltage. Check the Following:

i. For DDAC you MUST Maintain 12V DC to System.

ii. For SXL you MUST Maintain 24V DC to System.



another Truck with CAM facing each other outside the Warning Zone. Slowly move a Truck into the Warning zone. Rapid beeps will sound on both trucks. The standard alarm times out after 5 seconds.

To check the field, hold a PAD at the edge of the Danger Zone on the long axis of the Generator. Slowly move the PAD from Danger to Warning.

ALTERNATE GENERATOR MOUNTING CONFIGURATIONS

Top Mount

Install the Generator on top of the overhead guard (Fig. 24). It should be placed as far from the LED light as possible. Use the U-Bolts to secure the Generator to the overhead guard.

Front Mount

Install the Generator on front post of the overhead guard. Use the U-Bolts to secure the Generator to the frame (Fig. 25).

Rear Mount with Weather Shield

Install the Generator on top of the overhead guard and at least 4" from the frame (Fig. 26). It should be placed as far from the LED light as possible. Use the U-Bolts to secure the Generator to the overhead guard.

Top Mount with Weather Shield

Remove the end caps using a phillips head screwdriver. Install the Generator on top of the overhead guard. (Fig. 27) It should be placed as far from the LED light as possible. Use the U-Bolts to secure the Generator to the overhead guard.

Cab Silencer Locations (Fig. 28)

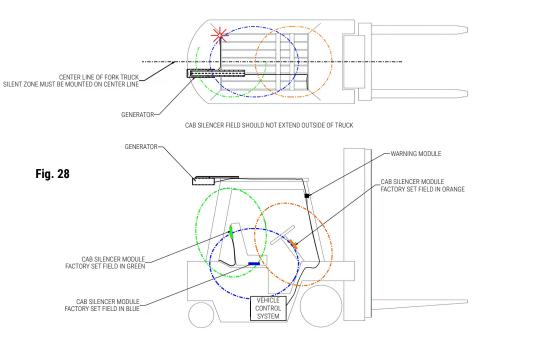






Fig. 26

Fig. 27

Fig. 24

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