impact®

VC-500WLN
Digital Monolight
INSTRUCTIONS

Introduction

Thank you for choosing the Impact VC-500WLN Digital Monolight, or the VC-500WL2KN and VC-500WL3KN Digital Monolight Kits. This professional-grade studio lighting unit features a user-replaceable 250 W halogen modeling light and a 500 Ws flash tube. The monolight is constructed with a durable housing and boasts a lightning fast 1.5 second recycle time, intelligent adaptive thermal control, and CMOS chip circuitry.

The powerful Impact Digital Monolight has an integrated 2.4 GHz, 16-channel wireless radio receiver. You can trigger the monolight from a distance of 328 feet (100 m) when it's partnered with the VC-500WLXMT transmitter (included with kits only, sold separately). Paired with the unit's integrated group functions, you can arrange and digitally segment each of their remote devices as needed. Additionally, the flash's seven optical slave modes enable the device to communicate with your on-camera master flashes, seamlessly triggering up to six preflashes.

Features
- Fast recycle time and flash duration
- Integrated 2.4 GHz wireless receiver
- 250 W user-replaceable halogen modeling light
- Adaptive thermal control
- CMOS chip circuitry
- Compatible with S-mount accessories
- Low 5 V trigger voltage
- Quiet fan cooling

Box Contents

VC-500WL3KN
- Digital Monolight (×3)
- Reflector (×3)
- 9 ft. air-cushioned light stand (×3)
- 40 in. umbrella—white with black backing (×3)
- 24 × 36 in. softbox with speed ring
- Wireless controller
- AC cable (×3)
- 250 W modeling lamp (×3)
- Flash tube (installed) (×3)
- Spare fuse (in fuse bay) (×3)
- Protective cover (×3)
- Wheeled kit case
- User manual

VC-500WL2KN
- Digital Monolight (×2)
- Reflector (×2)
- 8 ft. air-cushioned light stand (×2)
- 40 in. umbrella—white with black backing (×2)
- 24 × 36 in. softbox with speed ring
- Wireless controller
- AC cable (×2)
- 250 W modeling lamp (×2)
- Flash tube (installed) (×2)
- Spare fuse (in fuse bay) (×2)
- Protective cover (×2)
- Wheeled kit case
- User manual

VC-500WLN
- Digital Monolight
- Reflector
- AC cable
- 250 W modeling lamp
- Flash tube (installed)
- Spare fuse (in fuse bay)
- Protective cover
- User manual

Precautions

- DANGER: high-voltage parts inside.
- There are no serviceable parts inside the unit. Only qualified service engineers should access the inside of the casing.
- If the flash tube or modeling light becomes cracked or damaged in any way, replace immediately.
- Keep this product away from water and any flammable gases or liquids.
- Use only the correct, recommended voltage.
- Avoid rapid, high-power flashing.
- Excessive heat shortens the life span of flash tubes, modeling lamps, and internal components.
- If the unit is not used for two months, turn it on for 30 minutes, and fire the flash several times to charge the capacitors.
- Always remove the protective cap before plugging in or powering on the unit.
- Never operate the flash with the protective cap on.
- Make sure this product is powered off when plugging it into a power source.
- Turn off the power and unplug the power cord from the unit and wall when the monolight is not in use.
- Always remove the modeling lamp and attach the protective cap when transporting the unit.
- Do not attempt to disassemble or repair this product. There are components inside that can produce a hazardous electric shock.
- Handle this product with care.
- Do not stare at the lights when they are powered on.
- Clean this product with only a soft, dry cloth.
- Always wear cotton gloves when handling the flashtube.
- Keep this product away from children.
- Make sure everything is secure before proceeding.
- Make sure that this product is intact and that there are no missing parts before use.
- All images are for illustrative purposes only.

Overview

Front Side:

1. Monolight
2. Mount release
3. Modeling lamp
4. Reflector
5. Flashtube

Top:

6. Optical sensor

Overview (continued)

Back:

1. LCD screen
2. Power input jack
3. Fuse bay
4. 1/4" (6.35 mm) sync port
5. Power switch
6. Modeling light and power output adjustment dial
7. Test button
8. Audio button
9. Up and down buttons
10. Power indicator
11. Modeling light mode indicators
12. Slave mode button
13. Slave LED indicator
14. Umbrella mount tightening knob
15. Umbrella mount
16. Stand mount adjustment knobs
17. Stand mount
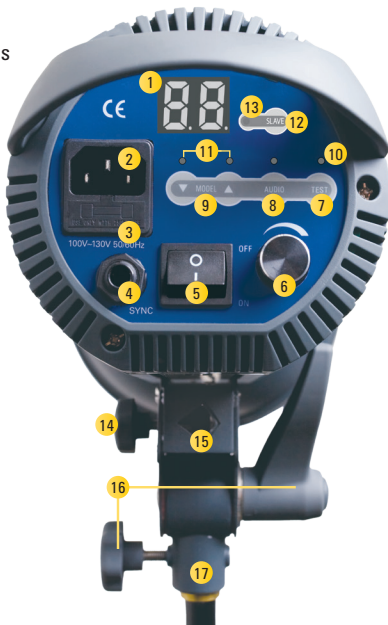
Remote Guide (Kits Only)

Top:
1.   Up button
2.   Down button
3.   Test button
4.   Group indicators

Right Side:
5.   Group selector button

Left Side:
6.   Battery compartment

Bottom:
7.   Channel DIP switches
8.   Hot-shoe mount
9.   3.5 mm sync port

Menus

Mode 1

Optical slave
menu (0–7)

Channel selector
(1–16)

Group selector
(A–D)

Mode 2

Time frame

Block time

Preparing for Use

The Impact Digital Monolight includes a preinstalled flash tube and a modeling lamp that's packed separately in the box. Both lights are user replaceable. Be careful not to touch the flash tube with your bare hands, since this could cause damage to it. Use cotton gloves or a soft, dry cloth when touching or handling the flash tube.

The monolight's modeling lamp is a halogen bulb within a glass sleeve. You can touch this glass without cotton gloves. However, wiping it with a cotton cloth after handling it is recommended. To install the modeling lamp, see *Installation and Replacement Guide* on page 23.

The monolight ships with a protective cap. Always remove the protective cap before plugging in or powering on the unit. To remove the cap, push back the mount release and turn the cap counterclockwise. Pull the cap from the mount, and place it to the side for later use.

Attach the reflector by aligning the lugs and making sure the umbrella hole is on the bottom. Push back the mount release, fully insert the reflector, and turn it clockwise. You'll hear it click into place. Let go of the mount release.

Mounting Accessories

Light Stand Mount

The Impact Digital Monolight has a standard 5/8″ stand mount with tilt and tightening knobs. To mount the monolight on a light stand, place the stand mount onto a compatible stand with a standard 5/8″ top mount. Turn the tightening

knob to secure. Turn the adjustment knob counterclockwise to adjust the tilt of the monolight. Turn the knob clockwise to secure the monolight in place.

Accessory S-mount

The Digital Monolight has an S-mount for light-modifying accessories. This can be used with optional add-ons such as speed rings for softboxes. The included umbrella reflectors line up with the units' umbrella mounts located on the stand mounts.

To use accessories with the monolights' S-mount, align the accessory with the mount and insert. Once inserted, rotate the accessory clockwise to secure. To remove it from the mount, hold down the mount release and rotate the accessory counterclockwise.

Umbrella Mount

To mount an umbrella to the monolight, first attach the reflector using the above instructions. Then run the umbrella rod through the reflector's umbrella hole and into the monolight's umbrella mount. Secure the umbrella by tightening the umbrella locking knob.

Note: Umbrellas are included only with two- and three-light kits. Umbrellas can be purchased separately for the VC-500WLN.

Connecting Your Camera to the Monolight

The Impact Digital Monolight has two triggering options.

Sync Cord (Optional Accessory)

The back of your monolight has a 1/4″ (6.35 mm) sync input, which is used for a wired connection between your camera and the flash unit.

1. Insert the sync cable's 1/4″ end into the monolight's sync cable port.

2. Insert the PC connector end into your camera's PC socket. If your camera does not have a PC port, an adapter will be required.

Wireless

Note: The remote is included only with the two- and three-light kits. The VC-500WLXMT remote can be purchased separately.

The Impact Digital Monolight has an integrated 2.4 GHz, 16-channel wireless receiver. Using the included transmitter, you can wirelessly trigger your flash unit from up to 328 feet (100 m) away. Line-of-sight is not required for your monolights to communicate with the transmitter.

For instructions on how to operate your monolights with the transmitter, refer to the transmitter's user manual or the instructions in this manual.

Note: You can attach your own wireless triggering system receiver to the Digital Monolight via the sync port.

Powering the Monolight

The Impact VC-500WLN Monolight is designed to operate with a 100–130 V, 50/60 Hz AC power. Before powering your monolight, first plug the AC cable into the flash's AC input, and then plug it into the wall socket.

Press the power switch to turn the unit on. The LED will show the current flash power setting.

Note: The monolight saves all of the previous flash and modeling light settings. All of these settings will be active when powering on.

Important! Impact recommends charging the monolight's capacitors for one hour before its initial use, and after an extended period of inactivity (more than two weeks). If the unit is left unused for an extended period of time, or if the unit has been mostly used at low power, set the monolight output to full power and leave it plugged in and switched on (with the modeling lamp off) for at least 30 minutes. This will help preserve the life of the capacitors.

Flash Settings

Setting the Monolight's Power Output

The Impact Digital Monolight's flashtube has a 6-stop power range, represented by a 1–6 (f-stop) numbered scale on the LED screen. The adjustment knob changes the monolight output value by 0.1 f-stop increments per detent.

To increase or decrease the power output of the monolight, turn the adjustment dial on the back of the flash unit. This will adjust both the monolight and modeling lamp (unless the modeling lamp is set to independent mode on or off). For information on adjusting the modeling lamp power output, refer to page 14.

When decreasing the power of the flash, the power output setting on the LED screen will blink until the capacitors release the accumulated energy (auto power dump). To speed up the process, press the TEST button to fire the flash after the output has been decreased.

Setting	Power
6.0	Full
5.0	1/2
4.0	1/4
3.0	1/8
2.0	1/16
1.0	1/32

Setting the Modeling Light Power Output

The VC-500WLN Monolight has a 250 W, 60 Hz user-replaceable modeling light bulb.The modeling light's power output is represented on the LED screen by a 1–6 numbered scale that can be adjusted by 0.1 increments.

This monolight has built-in soft-start circuitry, which ensures a long modeling lamp life. When the monolight is powered on, the circuitry starts the monolight at a minimum power output, then raises it incrementally until the desired power output is reached.

To activate the modeling lamp, press and release the output adjustment dial.

The modeling light has two operating modes:

• In **proportional** mode, increasing or decreasing the flash power will incrementally increase or decrease the modeling light brightness.

• In **independent** mode, the modeling light brightness can be set independently of the flash without changing the flash output power.

Proportional: When the modeling light is activated, the default setting is proportional, as indicated by the indicator above the ▲ button. As you adjust the monolight's power output via the adjustment dial, the modeling light will increase or decrease proportionally. This gives you the general idea where highlights and shadows will fall in relation to the flash power.
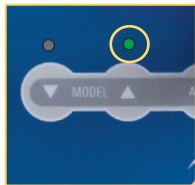
Independent: To change to independent mode, press the adjustment dial a second time. The indicator will appear over the ▼ button. You can now independently control the modeling lamp's light output by pressing the ▲ or ▼ buttons. The display shows the modeling light output level. Once you have completed this operation, the display reverts back to the flash power level after approximately 4 seconds.
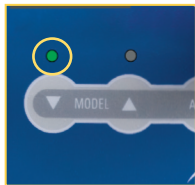
Note: Each button press will change the power output of the modeling light by one-tenth unit. Press and hold down the ▲ or ▼ button to increase or decrease the numbers at a faster pace.

The modeling light can be used as a recycle indicator. When the audio function is deactivated (see the *Audio Button* section on page 22), the modeling light will turn off when the flash is fired, and it will turn on again to indicate that the capacitors have recharged. When the audio function is active, the modeling light will not turn off when the flash is fired.

Press the adjustment dial a third time to power off the modeling light.

Slave and Preflash Settings

The Impact Digital Monolight has seven optical slave/preflash modes.

Activate the slave mode by pressing the slave button once. The slave indicator light will appear over the slave button. Press it again to turn it off.

To adjust the preflash settings, press and hold the slave button for four seconds. Use the ▲ and ▼ buttons to toggle between preflash settings.

C0: Using your master flash, release a test exposure. The monolight will automatically memorize the amount of preflashes fired.

C1: The monolight will flash when it detects another flash.

C2: The monolight will trigger after one preflash.

C3: The monolight will trigger after two preflashes.

C4: The monolight will trigger after three preflashes.

C5: The monolight will trigger after four preflashes.

C6: The monolight will trigger after five preflashes.

C7: The monolight will trigger after six preflashes.

Special Functions (Transmitter Only)

The Impact Digital Monolight two- and three-light kits (VC-500WL2KN and VC-500WL3KN) include a wireless radio transmitter for remote triggering.

Setting Channels on the Monolight

The Impact Digital Monolight has an integrated 2.4 GHz 16-channel radio receiver. Set your devices to the same channel to trigger them all at the same time. This also aids in avoiding radio interference from other devices in the area.

To set the channel, press and hold the slave button for four seconds. The c icon appears on the screen to indicate optical slave mode. Press the slave button again for the channel selection screen. The F icon will appear on the screen. Use the ▲ or ▼ buttons to select a channel (see *Remote Instructions* on page 18).

Setting Groups on the Monolight

This monolight can be set to one of four groups: GA, GB, GC, or GD.

To select a group, press and hold the slave button for four seconds. Press the slave button twice. The G icon will appear on the screen. Use the ▲ or ▼ buttons to select a group.

Impact's VC-500WL2KN and VC-500WL3KN two- and three-light kits come with a 2.4 GHz transmitter that enables the user to control and trigger the studio flash remotely. (The VC-500WLXMT transmitter can be purchased separately.)

Mount the transmitter onto your camera's hot shoe or connect it using the included 3.5 mm to PC sync cord.

To use the remote with the Digital Monolight, use the following features:

Flashtube Power Output

Press the ▲ or ▼ button on the remote to adjust the power output of the flashtube. Each push of the button will adjust the output in 0.1 increments.

Modeling Light Power Output

To turn on the modeling light using the remote, press and hold the ▲ button for three seconds. Press the ▲ or ▼ button to adjust the light's output. Press and hold the ▼ button to turn off the modeling light.

The modeling light can be activated only in independent mode by the transmitter.

To operate the modeling light in proportional mode, make the appropriate settings manually on the unit (see page 15). Control the modeling light's output in proportional mode by following the above instructions.

Note: When using the trigger with the modeling light in proportional mode, the ▲ or ▼ buttons will change only the flash power output. If you press and hold the ▲ button, the modeling light mode will change to independent (as indicated by the LED indicator light). If you press and hold the ▼ arrow, the modeling light mode will turn off.

Channels

This studio flash has a 16-channel radio receiver, which can be triggered using the included transmitter. To adjust the channel settings on the remote, first remove the battery compartment door. Set the device to your required channel using the chart below as a guide.

Note: White represents the DIP switch button.
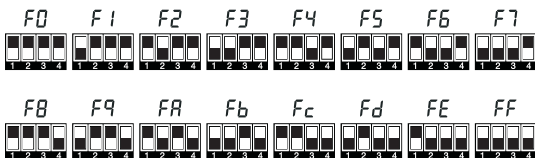
Note: The channel setting on the monolight and the transmitter must match in order to wirelessly trigger the flash, adjust flash power, and turn on/off the modeling lamp.

Groups

The Impact Digital Monolight has four groups, used to segment remote devices. To change the group that the trigger transmits to, press the group selector button repeatedly until the required group selection corresponds with the correct indicator light.

Note: The group setting on the monolight and the transmitter must match in order to wirelessly trigger the flash, adjust flash power, and turn on/off the modeling lamp.

Testing the Monolight

Press the transmitter's test button to test-fire the monolight.

Replacing the Battery (CR2032)

To install a battery into the wireless trigger, first remove the battery compartment door. Remove the spent battery by holding back the clasp and pulling the battery out. Insert the new battery under the clasp, using the correct orientation, and snap the other side into place. Reinstall the battery compartment door.

Preflash Variation Settings

The Impact Digital Monolight is compatible with nearly all master flash or slave units. Different brands use different numbers of preflashes before triggering other slave units. To facilitate those differences, this studio flash has two settings that enable the flash to ignore a user-selected timeframe of preflashes before firing. Use these functions when you need to manually control preflash, instead of using the "Slave and Preflash Settings" mode.

Note: Various brands of flashes have different numbers and durations of their preflashes. Some trial and error may be necessary to obtain your model's best settings.

Time Frame

The Time Frame function allows for a variable of 1 to 5 seconds for the studio flash to ignore master preflashes. To use this function, refer to the following instructions:

1. Press and hold the slave button for 8 seconds.

2. Use the ▲ or ▼ modeling light output buttons to select your required setting.

Setting (t)	1	2	3	4	5
Time (sec.)	1	2	3	4	5

Note: The default setting of this function is t2, which means the flash will be triggered after 2 seconds of preflashes. When using multiple speedlites with different preflash frequencies, this mode will group all the flashes as one before firing.

To exit the Time Frame function menu, press and hold the slave button for approximately 4 seconds until the flash power setting appears on the screen, or slightly move the adjustment dial.

Block Time

The Block Time function allows for a variable of 1 to 18 milliseconds for the studio flash to ignore master preflashes. In this mode, your monolight will begin to record and learn to recognize your device's preflashes. This is to compensate for the different preflash timing between devices. To use this function, refer to the following instructions:

1. Press and hold the slave button for 8 seconds.

2. Press the slave button again.

3. Use the ▲ or ▼ modeling light output buttons to select your required setting.

Use the following chart as a reference for this function's settings:

Value (b)	1	2	3	4	5	6	7	8	9
Time (ms)	2	4	6	8	10	12	14	16	18

Note: The default setting on this mode is b5.

To exit the Block Time function menu, press and hold the slave button for approximately 4 seconds until the flash power setting appears on the screen, or slightly move the adjustment dial.

Other Functions and Protective Features

Audio Button

When the LED indicator over the audio button is on, the monolight will emit a beep to indicate various alerts and functions. To turn this function off, press the audio button once. The LED indicator will turn off. Press the audio button again to reactivate the function.

Note: When the audio function is disabled, the modeling light will act as a recycle indiactor. When the flash is fired, the modeling light will blink off until the capacitors have recharged, and then turn on again.

Overheating Protection

After a long shooting session at a high power output, the recycling time of the flash will increase automatically until the flash cools to a safe level. Once cooled, it will begin operating as usual.

Overvoltage and Overcurrent Protection

The flash is protected against unstable voltages. Overcurrent protection is useful when using a power generator (gasoline or electric) to power the flash unit.

Error Codes

In the event of a malfunction, the LED screen will display a blinking error code. In addition, error codes E2 and E3 are accompanied by a beep warning.

E1: Temperature transducer problem. Turn the unit off immediately and contact Impact customer service.

E2: This error code can appear after a long shooting session at high output or rapid sequence. Turn off the flash unit and allow it to rest for 30 minutes.

E3: This error code will appear when the internal voltage of the flash is too high. Turn off the power immediately. After 5 minutes, turn the flash back on. If the error is still displayed on the LED screen, turn off the monolight and contact Impact customer service.

Installation and Replacement Guide

The Modeling Light

The Impact VC-500WLN Monolight comes with a 250 W 60 Hz halogen modeling lamp bulb. (The 220v 50Hz kit will come with a 220v, 250 W modeling lamp).

To remove an old bulb and install a replacement bulb, follow these steps:

1. Ensure the monolight is powered off and unplugged.

2. Using a cotton glove or soft, dry cloth, carefully unscrew the modeling light bulb.

3. Pick up the replacement bulb with the glove or cloth and insert the base into the modeling light socket. Turn it clockwise until tight.

Note: The Digital Monolight has built-in SSC (soft-start circuitry) to ensure a long modeling lamp life. When the modeling lamp is turned on, it will light up at a minimum brightness and slowly reach full power output. This feature prolongs the life of the modeling lamp.

The Flash Tube

The Impact Digital Monolight's flash tube is user-replaceable. To replace the flash tube, follow these steps:
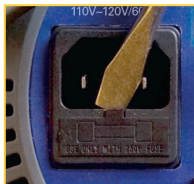
1. Discharge the flash unit by pressing the test button.

2. Turn off the monolight and unplug the power cable from the flash unit and power source.

3. After 30 minutes, remove the modeling lamp and any other accessory connected to the unit.

4. Wear a pair of cotton gloves or hold a soft, dry cloth, and use a pair of needle-nose pliers to carefully unhook the retention spring loop of the flash tube. Make sure it is disengaged from the flash tube.

5. Once it is unhooked, grip the base of the flash tube on each side and carefully pull it from the monolight.

6. Pick up the new flashtube and push its pins into the sockets by applying firm, even pressure at the base.

7. With needle-nose pliers, hook the retention spring over and above the flash tube.

8. Reinsert the modeling lamp, then any other accessory to the monolight.

Replacing the Fuse

The Impact Digital Monolight comes with two fuses: one installed and one spare. Both are located within the fuse bay. To remove the fuse housing from the fuse bay and replace the fuse, use the following instructions:

1. Ensure the monolight is powered off and unplugged.

2. Using a slotted screwdriver, lift the fuse housing via the nook found on the flat side of the AC jack.

3. The fuse located within the housing is the one the monolight is using when it is powered on. To replace the fuse, remove it from the box.

4. Replace it with the included spare.

5. Reattach the fuse holder to the fuse bay to complete the process.

Specifications	
Power Output	500 Ws
Guide Number	78
Output Control Range	Full to 1/32 in 1/10 increments
Recycle Time (110~120 V 60 Hz)	0.2 to 1.5 sec.
Flash Duration	1/800 to 1/1200 sec.
Flash Ready Indicator	Visible or audible confirmation
Power Range	6 stops
Modeling Lamp	E26/27, 250 W Max SSC (soft-start circuitry)
Modeling Lamp Control	Proportional, Independent, Off
Triggering Method	16-channel wireless transmitter (included with kits only), direct connect 6.35 mm phono plug to PC cord (optional accessory), optical slave with preflash settings.
Effective Wireless Distance Range	328 ft. (100 m)
Battery Replacement for Transmitter	CR2032 3 V
Color Temperature	5600 K (±100 K)
Flash Tube	User-replaceable plug-in tube
Trigger Voltage	DC 5 V
Sync Cable Input	1/4″ (6.35 mm)

Specifications	
Slave Settings	Red-eye reduction, synchronous
Integrated Receiver Frequency	2.4 GHz
Channels	16
Cooling Fan	Yes
Touch Pad Controls	Yes
Auto Power Dump	Yes
Adaptive Thermal Control	Yes
Housing Material	Aluminum casting with textured coating
Mount Type	S-mount, umbrella mount
Power Source	100 to 130 V 50/60 Hz
Circuit Protection	12.5 A
Length of Included AC Cord	13 ft. (4 m)
Weight	5.2 lb. (2.35 kg)
Dimensions (with protective cap) (L × H × W)	16.5 × 8 × 5 in. (42 × 20 × 13 cm)

FCC DISCLAIMER:
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

One-Year Limited Warranty

This Impact product is warranted to the original purchaser to be free from defects in materials and workmanship under normal consumer use for a period of one (1) year from the original purchase date or thirty (30) days after replacement, whichever occurs later. The warranty provider's responsibility with respect to this limited warranty shall be limited solely to repair or replacement, at the provider's discretion, of any product that fails during normal use of this product in its intended manner and in its intended environment. Inoperability of the product or part(s) shall be determined by the warranty provider. If the product has been discontinued, the warranty provider reserves the right to replace it with a model of equivalent quality and function.

This warranty does not cover damage or defect caused by misuse, neglect, accident, alteration, abuse, improper installation or maintenance. EXCEPT AS PROVIDED HEREIN, THE WARRANTY PROVIDER MAKES NEITHER ANY EXPRESS WARRANTIES NOR ANY IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. This warranty provides you with specific legal rights, and you may also have additional rights that vary from state to state.

To obtain warranty coverage, contact the Impact Customer Service Department to obtain a return merchandise authorization ("RMA") number, and return the defective product to Impact along with the RMA number and proof of purchase. Shipment of the defective product is at the purchaser's own risk and expense.

For more information or to arrange service, visit www.impactstudiolighting.com or call Customer Service at 212-594-2353.

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