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STEWARD YOUR RESOURCES™

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Reply Device Guidelines for Cheque 21® Image Scanners

People, Donors, Constituents use Reply Devices which are documents designed to solicit an action. Their subsequent use consists of two groups: The person who is sending a donation or order to your nonprofit organization after receiving a Reply Device, and, your Gift Entry, Gift Processing, Gift Receipting or Donation Processing will process, post and deposit the checks. While good Reply Device design may make it faster to process, the most important issue is to make the Reply Device easily understandable to the person who is making a donation, paying a pledge, buying a premium, or being asked to act. If a person can easily pay their pledge or make a donation, then this will help reduce time-consuming exceptions and they may give more.

Reply Device Size

The recommended Reply Device dimensions for Cheque 21® image scanners are:

Dimension	Allowed Ranges	Recommended	Comments
Length	3.2 to 8.8 inches	6.0 to 8.5 inches	Think personal to business check-sized ranging from 18# to 32# with ideal paper weight 24# to 28#
Height	2.4 to 4.3 inches	2.5 to 4.0 inches	

Reply Device physical size determines the resulting image size. Use as small a size as possible while still providing adequate space for all information. One side should be longer than the height as the Reply Device may need to be imaged in landscape.

Reply Device Size for Return Envelopes

When processing Reply Devices on a dedicated check image scanner, such as a CTS LS150, Digital Check TS2X or Seac Orion, it helps greatly if you can receive unfolded Reply Devices. For example, if the Reply Device is 8½ inches long and the envelope is 6 inches long, you have a near 100% chance of receiving a folded Reply Device and/or folded check. This will bog you down twice! First to unfold the Reply Device and check from each other, and, then to make sure the Reply Device and check don't jam because of the fold. Remedy this by giving your donor a No. 9 envelope that is over 8½ inches long, so it is much less likely that neither Reply Device nor check are bent or folded when the donor sends it.

Reply Device Location

A Reply Device should be torn from the bottom of the page not the top. This ensures the bottom edge of the Reply Device is straight and consistent when it moves through the check image scanner.

Cheque 21® System Compliant Reply Devices

Checks and Reply Devices moving through the CTS, Digital Check or Seac check image scanner are imaged front and back (duplex). While the Cheque 21® System Reply Devices do not require fixed position OCR scan lines, it makes it far easier for Gift Processing and character recognition technology if the OCR is printed within static zones or regions. These zones permit printer variance without significant degradation in character recognition. OCR characters should be printed in machine-readable OCR-A font for new implementations or can remain in OCR-B for legacy implementations. The OCR-A font is a crisp, clear font which tends to yield higher and more accurate recognition results, and, this usually equates to fewer errors and less key-from-image corrections. While proportional fonts may match all the Reply Device text, different recognition engines may be needed to supplement the built-in OCR-A or OCR-B recognition available for use with the check image scanner and associated software.

Using OCR Scan Lines and Barcodes

Commercial or for-profit institutions can use a barcode or single, long horizontal OCR scan line for many data fields. While acceptable, most fundraisers believe barcodes or long OCR scan lines "turn-off" potential donors and consume too much "real estate". Instead, nonprofit Reply Devices use one to three OCR data fields at a minimum:

- Appeal, Motivation or Source Code to identify the source of the Reply Device.
- Constituent ID or Donor ID is needed for cultivation of your existing donors while the Finder File ID for mailing list appeals to attract new donors. The overall length of the Constituent ID / Donor ID and Finder File ID must be the same.
- Depending on the fundraising software, Database ID, fund code, and, solicitor code may be optionally included.
- A checksum digit on the entire OCR scan line shall mathematically prove and validate that the OCR scan line was correctly read by the Cheque 21® System. This will significantly reduce the need to manually key the OCR scan line.

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- Data fields in the OCR scan line are always printed in the same physical order on all Reply Devices.
- Each OCR character must be separate and distinct from the next character, OCR characters may not touch.
- Print 1 or ideally 2 character spaces between each OCR data field. This will make it easier for Gift Entry to key-from-image.
- The OCR scan line should have a minimum ¼" gap between it and other data and artwork printed on the Reply Device.
- The OCR scan line should be at least ½" from the right edge (CTS or Seac) or left edge (Digital Check), with a ¼" minimum of "free" white space surrounding the OCR scan line.
- Ideally print white or lighter color background on the Reply Device's reverse-side that sits behind the OCR scan line to further eliminate background noise when the image is taken by the check scanner.
- Print OCR in 10, 11 or 12-point black font with no kerning (character squeezing), italics or bold.
- If you use a barcode, print the data within the barcode underneath so an operator can easily key it if it can't be recognized.
- The data fields within the barcode should include a checksum digit to further insure accurate reading.

Boxed Fields

Box fields denote a desired action or to select between various options. Boxed fields may indicate a Change of Address, indicate a new donation interest, intention or signature. When the Gift Entry sees a completed Box, they can easily make decisions:

- Print all boxes in the same size on the Reply Device, such as square, oval, circle or oblong.
- The boxes or areas should have a ¼" gap between it and any other box or text, and be at least 0.10 inches wide or larger.

Cheque 21® Amount Recognition

The two recognition amount fields on every personal and many business checks are: numeric courtesy amount recognition (CAR) and handwritten legal amount recognition (LAR). CAR/LAR technology reads the courtesy amount first and then reads the legal amount with the result compared to a preset level of confidence. When the CAR/LAR read amount does not exceed the preset level of confidence, Gift Entry may choose to VisuallyVerify™ the amount of the donation.

Paper Characteristics

The paper you use to print the Reply Device affects how well the check image scanner can mechanically process it and how well it can be imaged. The physical characteristics of the paper, including size, weight, and smoothness, all affect performance. This table shows typical paper ranges for check image scanners:

Parameter	Range	Recommended
Paper Weight	18 to 32 lb	24 to 28 lb
Thickness	0.003 to 0.005 in	0.005 in
Smoothness	50 to 200 Sheffield Flow units	100 to 150
Stiffness	30 to 100 mg Gurley	50 to 100 mg

Note: *Long-grain papers are required for paper weights under 24 lb, and recommended for all weights.*

The quality of the image is highly affected by the optical qualities of the paper, including reflectance, fluorescence, opacity, and gloss. High-gloss paper should be avoided as pen or printer ink toner may smear and the specular reflection may flash out portions of the image data. Low-gloss uncoated bond or ledger stock is best. Fluorescent additives to the paper can also cause portions of the image data to be obscured. Non-fluorescent papers are also recommended. Because dirt or foreign particles in the paper may appear in the image, the paper used should have a dirt level of less than 10 parts per million and 150 marks per 1,000 square inches. Recycled paper can be used as long as it meets all of the recommendations in this section.

Parameter	Range	Recommended
Reflectance	60% to 100%	70% or more
Opacity	74% to 90%	85% or more

If the Reply Device is printed on both sides, the paper must have opacity greater than 85% to ensure that printing on the reverse side does not show through in the image, which can impact recognition reading.